Inflammation is a very complicated phenomenon and consist a part of the immune response which is divided into a natural phase followed by an adaptive one. Tissue injury is followed by a cascade of events leading to the inflammatory response which is divided in three phases. The first phase of inflammation is manifested by the activation of the local tissue macrophages which exert their phagocytic action and the mast cells which liberate cytokines and vasoactive substances. Cytokines are divided in proinflammatory, chemokines and immunoregulatory ones. Proinflammatory cytokines trigger the second phase of inflammation while chemokines create a chemotactic current. Immunoregulatory cytokines prepare the adaptive phase of the immune response. A certain number of vasoactive substances mediate an initial local vasoconstriction aiming to restrict the cause of tissue injury. This vasoconstriction is followed by a broader local vasodilatation and an increased permeability of the vascular wall. These last events permit the inflammatory cells and macromolecules to reach the site of tissue injury. Many vasoactive substances like histamine, bradykinine, prosapaglandins, leukotrienes and nitric oxide participate in these actions. The second phase of inflammation, blood cells following the chemotactic current move to the site of injury and start their phagocytic activity. The third phase of inflammation is connected with the tissue restoration.

Neuropeptides comprise a diverse group of chemically distinct molecules, contained in and released from a range of sensory nerves. They are involved in the formation, transmission, modulation and perception of all types of pain (physiological, neuropathic and inflammatory). This fact is reflected on their wide distribution, from primary sensory neurons to the dorsal root ganglia of the spinal cord and the brain. With the recent advent of molecular cloning techniques, transgenic animal models and the development of non peptide agonists/antagonists, efforts to describe their roles in the nociceptive processes at the molecular level have revealed a complicated pattern in terms of their localization, function and receptor expression. They co-localize with other neuropeptides or with neurotransmitters (ie. GABA) within the same nerve-ending; when released, they either block or enhance the effect of these other neurotransmitters and/or neuropeptides. In addition, neuropeptides, such as calcitonin-gene-related peptide (CGRP) and neuropeptide tyrosine (NPY), have been found to be expressed and released from non-neuronal cells, acting via the same (or more distant) receptors as their neuronal counterparts. Peptide expression is also characterized by plasticity under normal and experimental conditions, a trait related to their pleiotropic function. On the other hand, it is probable that neuropeptide action is characterized by considerable redundancy, which may account for the poor performance of individual neuropeptide inhibitors in clinical trials. This situation may well change however, as more and more neuropeptide targets are being characterized and techniques for the specific ablation of entire neuropeptide-synthesizing neurones are being developed. Hopefully, novel pain treatments based on the targeting of neuropeptide...
action are going to replace - or, at least, complement - the current use of
opioid drugs, leading to increased efficacy and reduced adverse effects,
in the not-too-distant future.

S4
Drugs against pain-new concepts
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Non Steroid Anti-Inflammatory Drugs (NSAIDs) have been the treatment of
choice for mild to moderate inflammatory pain for more than a
century. NSAIDs block the formation of prostaglandins by inhibiting
cyclooxygenase (COX). Their most common side-effect is ulceration of the
upper gastrointestinal tract. The development of selective COX-2 inhibitors
(coxibs) has reduced gastrointestinal toxicity significantly, but
coxibs appear to have a significant cardiovascular risk and to be less
effective in neuropathic pain.

Opioids have traditionally been used for severe acute and cancer chronic
pain, while recently their use in the therapy of chronic non-cancer pain
has increased substantially. Chronic opioid therapy can be an effective
treatment for carefully selected and monitored patients with chronic non-
cancer pain. However, opioids are also associated with potentially serious
harm, including opioid-related adverse effects and outcomes related to
the abuse potential of opioids.

Many drugs that are used to treat other illnesses can also be used for
the treatment of chronic and neuropathic pain, either alone or in
combination with other analgesics. These drugs include antidepressants,
anticonvulsants, antimagaine medicines, local anesthetics, corticosteroids,
muscle relaxants, benzodiazepines, neuroleptics, cannabinoids,
antihistamines, a2 adrenergic agonists, stimulants, biphosphonates and
calcitonin, as well as tramadol, which is a weak u-opioid agonist that
inhibits the reuptake of norepinephrine and serotonin, too.

Recently, novel targets against inflammatory pain with improved
specificity and fewer side-effects are under investigation, like
prostaglandin E synthases, prostaglandin receptors, COX-inhibiting nitric
oxide donors (CINODs), downregulation of inflammatory transcription
factors and cytokines, and downstream effectors of prostaglandins in the
PNS and CNS. New targets against chronic inflammatory and neuropathic
pain include modulators of nociception and pain transmission, like NMDA
and other glutamate receptors, GBP and voltage-gated Ca2+ channels
(VGCC), nicotinic acetylcholine receptors, transient receptor potential
(TRP) channels, tetrodotoxin-resistant Na+ channels, inhibitory glycine
and GABA receptors, monoamine receptors, adenosine receptors,
nicotinic receptors, neurotensin receptors, as well as regulators of
inflammation, neuroinflammation and pain, like nerve growth factor
NGF), matrix metalloproteases, neuropeptide S, substance P, neuremidin U,
and other neuropeptides.

S5
New guidelines on depression from NICE
Ruth I Olslen
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In September 2009, NICE will publish two new guidelines in the field of
depression - depression in adults and depression in chronic
physical health problems. The guideline on depression in adults
includes major changes to current prescribing practice. The most
important of these is the recommendation that antidepressants drugs
are switched if there is no response after three to four weeks. This
reflects the growing recognition that antidepressants have a prompt
onset of action and that failure to respond early in treatment predicts
ultimate failure to respond. Also included is a strengthened
recommendation for the use of additive antipsychotics (olanzapine,
quetiapine, risperidone and aripiprazole) as a first-line option in
refractory depression. The guideline on depression in chronic physical
health problems mirrors recommendations in the adult guideline and
adds specific recommendations for the use of antidepressants in a
variety of physical disorders. In this guideline, drug choice is based to
some extent on drug interactions and contra-indications. The outcome
of this is that less often used drugs (mianserin, mirtazapine, trazodone)
are recommended in a number of situations.

S6
Clinical lessons from GENDEP for the treatment of depression
Katherine J Atkinson
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Foundation Trust, UK

In GENDEP, a European multicentre pharmacogenomic study http://
gendeop.iop.kcl.ac.uk/results.php, subjects with major depression were
revised with escitalopram (ESC) or nortriptyline (NOR), in a part-
randomised potential crossover design, and prospectively rated for
response and ADRs with measures including the MADRS, HDRS, BDI, UKE,
and ASEC (a self-report measure developed for GENDEP, Uher et al, in
press). Factor analysis and Item Response Theory applied to the three
measures of depression employed in the study generated three symptom
dimensions. Mixed linear regression models showed no difference
between ESC and NOR on the three original scales, but symptom
dimensions revealed drug-specific advantages: observed mood and
cognitive symptoms improved more with ESC than with NOR;
neurovegetative symptoms improved more with NOR than with ESC.
CYP2C19 genotypic category significantly predicted steady-state (week 8)
ESC concentration. Analysis of baseline weight as a predictor revealed
that lower BMI predicted better response to NOR. There was good
agreement between the UKU and the ASEC, and urinary symptoms,
dry mouth, blurred vision, and orthostatic hypotension predicted
discontinuation of either drug.

S7
Using a preclinical approach to reveal potential mechanisms of ADRs
to antidepressants in adolescents
Evangelia M Tsapakis
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A recent meta-analysis of the efficacy of all types of antidepressants in
juvenile major depressive disorder patients [1] urged that additional
research be undertaken to clarify the limits of bounded responses in
adolescents and children to antidepressant treatments considered
standard in the treatment of adult major depressive disorder (MDD).
Sprague-Dawley rats were treated chronically with fluoxetine, imipramine,
tranylcypromine or vehicle control. Total RNA was extracted from brain
cortices, cRNA was fragmented and hybridised to Affymetrix Rat Genome
230 2.0 microarrays. A total of 24 microarrays were analysed (ie, 6
biological replicates in 4 treatment groups) and information on the
probesets of interest was obtained using different websites. Taqman real-
time qPCR methodology was used to validate the transcripts identified
from the microarray data-analysis as the most significantly differentially
expressed in response to treatment with imipramine or fluoxetine
compared to vehicle. The relative expression of each gene was also
Figure

Reference
1. Tsapakis E, Soldani F, Tondo L, Baldessarini R: Efficacy of antidepressants in
S8 Insights from pharmacogenetic studies of antidepressants
Laura Mandelli
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Up to 60% of depressed patients do not respond completely to antidepressants and up to 30% do not respond at all. Among the many reasons leading to non-response, such as inadequate treatments and comorbid conditions, genetic factors as likely to contribute to up to 50% of variance in antidepressant response. Environmental factors, such as chronic stressors, psychosocial adjustment and personality traits may also influence response to treatment and interact with these. The investigation of both of these types of factors has been informative in genetic aetiological studies (e.g. Caspi et al., 2003) and is increasingly employed in pharmacogenetics.

A growing number of genetic variants have been replicated in terms of association with SSRI efficacy. They include polymorphisms in the serotonin transporter gene (5-HTTLPR), tryptophan hydroxylase gene (TPH), SHT1A and SHT2A receptors, the G-protein beta3-subunit (GNB3), Catechol-O-methyltransferase gene (COMT), the noradrenaline transporter (NAT), and dystrobrevin binding protein 1 (DTNBP1). Data indicating environmental stressors and temperamental traits as moderators of the effect of such genes on response to treatment will also be presented.

In conclusion, there are genetic and environmental factors that interact in a complex manner to impact on response to treatment with antidepressants. Increased understanding of these, including clinical characteristics such as “harm avoidance,” may assist the clinician in deciding the best antidepressant to prescribe for a given patient.

References

S9 Is freedom of the will neutrally possible?
Philip Korgopoulos
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In this paper we are attempting in the context of recent developments in cognitive science to examine the viability of the Libert solution to the problem of the freedom of the will. We will be showing that this solution is still possible if refraining acts can be considered not only as different kinds of actions from performing acts, but also peculiar actions that have causal consequences without having a result component. It requires a very strong commitment to an odd model of action, which makes more plausible the Wegner idea that freedom of the will is to be explained away as an illusion, albeit an illusion that is helpful in establishing the authorship of actions.

S10 Kraepelin digitised: new technologies for monitoring the course of bipolar disorder
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In this symposium we will present novel work on new technologies developed to facilitate the symptomatic monitoring of Bipolar disorder in the context of recent prospective studies (Judd et al. 2002, Post et al. 2003) that have investigated the subsyndromal and syndromal course of the disorder and have highlighted the chronicity, variability, and complex nature of Bipolar symptomatology. Emil Kraepelin’s need to map his clinical observations and to gather data in order to carefully characterize the episodic course of manic depressive illness led him to develop the first graphical life-chart for Bipolar patients. Many decades later paper-based life charting systems were developed to monitor bipolar disorder, including the ChronoSheet by Peter Whybrow and the Life Chart Methodology (NIMH-LCM) by Robert Post. Over the last 10 years these paper methodologies have been computerized, and we now have a number of different systems to assist the electronic monitoring of Bipolar disorder. In this symposium two complementary electronic systems will be presented (Moodchart and iMonitor) along with a brief overview of the research they have generated. Finally, the symposium will conclude with novel and still experimental research using actigraphic devices for monitoring the course as well as the activities of bipolar patients.

S11 Enhancing adherence to mood charting with an online version of the NIMH Life Chart
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Longitudinal mood instability is the essential feature of bipolar disorder, however most rating scales are cross sectional in nature, and focus on acute symptoms. By contrast, the NIMH Life Chart Methodology (LCM) characterizes in detail the severity, duration, and frequency of mood episodes. Unfortunately, adherence to daily rating tends to be low. Compared to the traditional paper chart, an online adaptation of the LCM that used links embedded in a daily email as the primary form of data entry substantially increased the number of days rated by a sample of patients with bipolar disorder. An analysis of the ways in which users interacted with the application found that manipulation of the user interface affected the number of days that were rated. Features of video games and commercial web sites designed to reinforce repeated long-term use can be adapted to therapeutic applications to support adherence. These features include content delivery, point accumulation, personalization, discovery, and reward.

S12 MyiMonitor.com v. 1: a user-friendly mobile electronic diary for bipolar patients
Yanni Malliaris
Institute of Psychiatry, King’s College London, UK

Subsyndromal symptoms and daily symptom variability is a potential risk factor for bipolar relapse. iMonitor is a mobile palm based electronic diary that was developed to measure this variability and to assist bipolar patients to track the daily course of their illness. iMonitor was designed to measure day to day fluctuations in bipolar symptom states and to track core features of the bipolar illness, such as sleep duration, mood variability, function, activation, self-esteem variability, medication adherence, and life events using visual analogue scales (VAS) following the NIMH-LCM method. In addition, a special feature of iMonitor is its ability to customise itself to each patient’s relapse signature and to allow the tracking of more individual signs of relapse. The current version of iMonitor was developed to run on the cheapest possible handheld devices (Palm OS) in order to facilitate the application of electronic monitoring in low income patients who do not have access to personal computers (PCs) and the internet. The design of iMonitor appears relatively simple but this was based on advanced usability principles that serve to ensure an effortless user experience. Preliminary validation data have been gathered in the Maudsley Bipolar eMonitoring Project, and will be briefly discussed.
With activity sensors becoming smaller and more power efficient by the day, wearable activity sensors that anyone could wear as just as easily as a wristwatch have become a feasible concept. We present a small lightweight module, called Porcupine, which aims explicitly to continuously monitoring human activities as long as possible, and as fine-grained as possible. The main focus in this work is not so much the hardware, which uses omni-present and relatively cheap accelerometer technology, but the algorithms that analyze the sensor data and predict what physical activity the wearer is performing. We present results from the latest experiments with our prototypes, and show some scenarios in which such a fine-grained actigraph can be put to use. We also discuss the important application of the porcupine technology in the clinical monitoring of patients with Bipolar disorder and other psychiatric disorders where activity monitoring is clinically important.

Two lines of evidence point to the relationship between bipolar mood disorder and treatment-resistant depression. First, the frequency of suboptimal response to antidepressant drugs is significantly higher in bipolar than in unipolar mood disorder. Secondly, the first and the second generation mood stabilizing drugs are efficacious for augmentation of antidepressants in treatment-resistant depression. Short-term non-response to antidepressant drugs has been significantly higher in bipolar and in unipolar mood disorder. A significant percentage of unipolar depressed patients resistant to antidepressant drugs reaches a diagnosis of bipolarity during a specific screening or during follow-up. In the Polish all-country DEP-BI study including 880 depressed outpatients treated with psychiatrists, it was found that the percentage of treatment-resistant depression was significantly higher in bipolar than in unipolar mood disorder, especially so, in bipolar spectrum disorder where the features of bipolarity are most easy to overlook. Recent Polish TRES-DEP study included 1051 depressed patients (569 with treatment-resistant and 482 with treatment non-resistant depression). Using Hypomania Checklist List-32 (HCL-32) scale, it has been found that the percentage of ≥ 14 score on HCL-32, indicating bipolarity, was significantly higher in patients with treatment resistant than in treatment-nonresistant depression (44% vs 30%, respectively). Lithium, the prototypic mood stabilizer, has been the most frequent modality used for the augmentation of antidepressants in treatment-resistant depression, and the efficacy of lithium in this respect has been confirmed by a number of meta-analyses. Our study has shown that such effect of lithium is significantly better in bipolar than in unipolar depression. Out of the first generation antidepressant drugs, also some efficacy of carbamazepine, and to less extent, valproate, has been found for the augmentation of antidepressants. Lamotrigine, new generation anti-convulsant and mood-stabilizer, demonstrated its antidepressant efficacy both during acute episode and in prophylaxis of depression in bipolar illness. It has been also effective for augmentation of antidepressant drugs in treatment-resistant depression. In our study we found that the overall efficacy of lamotrigine was similar to that of lithium, however, both drugs were more efficacious for augmentation of venlafaxine than paroxetine. In recent years, there have been numerous studies on the efficacy of second generation antipsychotic drugs (some of them can be qualified also as second generation mood stabilizers) for the augmentation of antidepressants in treatment-resistant depression. While the clear antidepressant effect of quetiapine as monotherapy has been demonstrated, the majority of second generation antipsychotics proved their efficacy in augmentation of antidepressants in treatment-resistant depression, and aripiprazole, obtained an official approval for such indication.

Both the concepts of addiction (drug-addiction) and of responsibility are not universally crystallized and accepted. Even the terms in Greek language are disputable: Toxicomania or exartisis (dependence)? Enoche (guilt) or katalogismos (imputation)? Nosology and Criminal Law disciplines do not share necessarily common definitions about. The question here is if addiction implies merely incapacity to stop drug use, or even incapacity to choose a legal way to act in general. Is this incapacity an excuse or a mitigation factor, in the field of criminal responsibility? The answer presupposes some critical differentiations (kinds of crimes seriousness of crime e.t.c). In spite of the complexity, a guideline is simple: where addiction annulates or restricts free will to choose right or wrong doing, responsibility and consequently penalty are affected in favor of the accused actor of a crime. Where this is not the case, a regular punishment is fair.

The initiatives of the directly involved citizens like self help groups or organizations, throughout the years, have contributed decisively to the interpretation of the phenomenon of addiction and to the production of successful intervention paradigms. The dynamics of these approaches, their influence on the creation of successful alternative professional approaches and to behavioral sciences in general are discussed in this presentation. Additionally the influence the mainstream nosological approaches have on these alternative approaches nowadays are presented, along with the emerging danger of abolishment of their innovative characteristics.
factors, address all forms of drug abuse, and be tailored to address risks specific to population or audience characteristics.

There are three types of prevention approaches defined in terms of population and risk factors. Universal prevention strategies apply to the general population of youth, regardless of individual risk, and aim to deter the onset of substance abuse. Selective prevention strategies target youth who are at greater risk because of their environment. Indicated prevention strategies are directed toward youth who are already using drugs or exhibiting individual and personal risk factors of drug use, such as thrill seeking, aggression, or conduct disorders.

Universal, selective, and indicated preventive interventions are defined by their specific targets, however, all universal, selective, and indicative preventive efforts may be categorized as school-based, family or community-focused.

The increased cost of psychopharmacological treatment in combination with the need for the transformation of Mental Health care with closing of big mental asylums and expansion of community-oriented services makes the need to evaluate the whole process. The analysis of the economic data from the years 2000-2009 for the mental health hospital of Corfu in comparison with data from the National Statistical Agency and coding according to the International Classification of Health Accounts (ICHA) suggests that the cost increased in spite of the fact that the number of patients decreased dramatically. The concomitant increase in the psychotherapeutic and psychosocial interventions did not cause any reduction in pharmacological costs.

It seems important to include economic indices in the evaluation of psychiatric transformation and also to apply international systems for the registration and assessment of health accounts. Also, the issue of generic drugs arises as of prime importance.

S19 The family’s attitude towards addiction
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We already know that addiction is a complicated phenomenon. One of the most important factor is family conditions. Try to write in short way, we could say that in one hand family is an important factor on the creation of substratum for dependence. On the other hand don’t underestimate other factors of life such as personality, society and quality of life that are also very important. Family could take a serious role in the solution of addiction problem. Shortly, I will describe the basic steps of the way of a family that has one or more drug - addicted members.

· It takes a long time until family recognize the problem. Usually, family gives to the problematic behavior a lot of excuses.
· When they realize the problem fear, panic, perplexity, anger and sense of guilt comes to their lives.
· Then a member of family (usually the mother) try to find the solution of addiction problem. Shortly, I will describe the basic steps of the way of a family that has one or more drug - addicted members.

Biochemical, clinical and genetic evidence indicates that in neuropsychiatric disorders the alteration of membrane phospholipids metabolism can play a protogenetic role associated with that of the proportional balance of polyunsaturated fatty acids.

Various PUFA have been experimented with as therapeutic and helpful means of protection in the treatment of neuropsychiatric pathologies. Among these, treatments with pure ethyl-eicosapentaenoic acid (EPA) in double blind clinical studies compared with the placebo have been proved to be more effective. Its biosynthesis starts from alpha-linoleic acid and the activity of the delta-6 desaturated enzyme.

Ethyl EPA modifies the activity of PLA2, the alteration of which is accompanied by structural changes in neuronal membranes, observed in depressed patients as well as those with Alzheimer’s disease. It is enormously important as both precursor to active eicosanoids, which is as capable of competing with AA for the incorporation of the membrane as it is for the substrate according to the so called “fatty acid paradox” for the production of the DHA organism when this is necessary. Such EPA activity, which is crucial for the transmission of interneuronal signals, it interferes of phosphatidylinositol bisphosphate regulation, linked to the activity of the alpha subunit of the G protein.

The hydrolysis derivates of PIP2 they are the second messenger associated with different neurotransmissional systems and metabolic process. EPA interferes in the process, inhibiting the protein kinase-C AMP-c- dependent (PKC). In vitro inhibit the activity of PKC of the protein kinase II Ca2+/calmodulina dependent and inhibit the activation, induced by SHT, of the protein kinase activated by mithogen (MAPK). The proposed mechanism of pure ethyl EPA as the calcium-antagonist, blocking Ca2+ channels, is confirmed in cardiovascular studies. Blocking calcium channels could reduce the hyperactive signal transduction process.

Finally, EPA inhibits the production of pro-inflammatory cytokines that they are the main responsible for the appearance of the so called “Sickness behaviour syndrome”. Such data is important in recognising that the integrity and functionality of biomolecules is closely connected to the functionality of pure eicosanoid acids (EPA), from both the perspective of nutritional habits and that of therapy for neuropsychiatric illnesses.
Biochemical evidence
First trial of pure EPA in severe treatment-resistant depression
Subsequent randomized double-blind placebo-controlled trials
Putative mechanisms.
Results obtained from our own group, including structural neuroimaging and 31-phosphorus neurospectroscopy findings, showing an association of EPA treatment of depression with a marked decrease in cerebral phosphodiester, a marked increase in cerebral phosphomonoesters and reduced lateral ventricular volume, will also be presented.

S24
EPA in schizophrenia and violence
Ian H Treasaden
Lipid Neuroscience Group, Imperial College London and Consultant in Forensic Psychiatry, Three Bridges Unit, West London Mental Health Trust, Middlesex, UK
This lecture will describe the role of EPA in schizophrenia and violence by first considering fatty acid metabolism abnormalities in violence and in schizophrenia.
The results of the first 31-phosphorus magnetic resonance spectroscopy study of cerebral metabolism in patients with schizophrenia who have seriously and dangerously violently offended will then be described, which found a significantly lower beta-NTP and significantly higher gamma-NTP level in the patient group compared with age- and gender-matched control subjects. To explore these findings further, the relationship between these neurospectroscopy results and the volumetric niacin response (VNR) was studied. A significant negative correlation (Spearman r = −0.78, P < 0.005) was found between the VNR and cerebral Pi. The implications of this finding will be discussed. The further findings of our group relating to motion-restricted membrane phospholipids in the brain, measures of oxidative stress and changes in brain structure in patients with schizophrenia who have seriously and dangerously violently offended will be detailed. Finally, the implications of our results for the role of EPA in schizophrenia and violence will be described.

S25
EPA and the Perrin Technique: a combined approach to treating myalgic encephalomyelitis
Raymond Perrin
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Research over the past twenty years by the author into the bio-mechanical aspects of Chronic Fatigue Syndrome/Myalgic Encephalomyelitis has led to a hypothesis that a common aetiological pathway involves an insult to the lymphatic drainage of toxins from the central nervous system. Hypothalamic involvement in the pathogenesis of CFS/ME is discussed. The ensuing neurotoxicity due to infection, pollution and emotional or physical trauma may lead to excess of neurotransmitters such as acetylcholine due to autonomic over-activity.
Indeed an increase of choline has been found in the occipital cortex of CFS/ME sufferers. (Excess breakdown in acetylcholine could lead to high levels of choline in the brain). Damage to the phospholipid bonds from neurotoxins is shown to be repaired by the additional supplementation of EPA. By combining the EPA with the Perrin Technique (a manual treatment combining lymphatic drainage, spinal and cranial osteopathy) it is argued that the neurotoxins are drained away from the central nervous system thus leading to a lasting improvement in the health of CFS/ME patients.

S26
Running the hypothesis of a bio molecular approach to psychiatric disorder characterization and fatty acids therapeutical choices
Massimo Cocchi1,2*, Lucio Tonello3
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Beyond the conviction that Major Depression can found its origin in genetics [1-3] a bio molecular mechanism could be hypothesized from what emerged from the studies on platelets fatty acid composition in...
human (normal and depressive subjects) which allowed classifying the depressive disorder [4] using an Artificial Neural Network (Self Organizing Map-SOM) [5], as mathematical tool, because of the complexity of the membrane dynamics.

Rapid changes in membrane lipid composition or in the cytoskeleton could modify neuronal signalling. In the knowledge to have found something that could have implications in the understanding of some aspects of psychiatric disorders and a very suggestive hypothesis was build as summarized in Figure 1. In figure 1 is described the molecular depression hypothesis made according to Cocchi and colleagues [4], Donati and colleagues [6], Hameroff and Penrose [7]. The membrane viscosity can modify the Gs protein status. The Gs protein is connected with Tubulin. Tubulin, depending on local membrane lipid phase concentration, may serve as a positive or negative regulator of phosphatidylinositol bisphosphate (PIP2) hydrolysis, such as Gs protein does. Tubulin is known to form high-affinity complexes with certain G proteins. The formation of such complexes allows tubulin to activate Gs, which, in turn, can activate the Protein Kinase C and fosters a system whereby elements of the cytoskeleton can influence G-protein signalling. Rapid changes in membrane lipid composition or in the cytoskeleton might modify neuronal signalling. We have hypothesized that through this mechanism is possible to modify the consciousness state and that it is measurable through gamma synchrony EEG.

There are strong reasons to think that each fatty acid combination of Palmitic Acid (PA), Linoleic Acid (LA) and Arachidonic Acid (AA), in platelet, is responsible of the membrane viscosity and, therefore, of the molecular conditioning of the cellular stuctures (Gsa and Tubulin) and that the main therapeutic target is the reduction of the Arachidonic Acid.

References

S27
EPA and Huntington’s chorea: treatment and associated cerebral changes
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Huntington’s disease (Huntington’s chorea) is an autosomal dominant disease of the human brain caused by an unstable expansion of CAG trinucleotide triplet repeats in the huntingtin gene at 4p16.3; the CAG repeats are transcribed and translated into polyglutamine expansion (polyQ) stretches, and the length of the repeats correlates inversely with age of onset. Huntington’s disease is characterized by motor dysfunction, with chorea and incoordination occurring relatively early, dystonia, rigidity and bradykinesia becoming more prominent with time; death usually occurs within 15-25 years of onset of motor symptomatology. The key neuropathological change is neuronal degeneration, particularly in the striatum. The scientific background is given for why fatty acids may play an important role in Huntington’s disease. Evidence is then presented from a randomized double-blind placebo-controlled to show that ultra-pure ethyl-eicosapentaenoic acid (ethyl-EPA), a semi-synthetic, ethyl ester of eicosapentaenoic acid, is associated with clinical improvement in motor functioning in Huntington’s disease. The likely mechanisms of this beneficial action are then described. Finally, the results are detailed of a further recent study to determine the extent to which ethyl-EPA might reduce the rate of progress of cerebral atrophy. High-resolution cerebral magnetic resonance imaging scans were acquired at baseline, six months and one year in up to 34 patients with stage I or II Huntington’s disease who took part in the trial of ethyl-EPA. For each subject and each pair of structural images, the two-timepoint brain volume change was calculated in a double-blind manner.

S28
Early neurobiological changes in childhood after traumatization
Apostolos Vourdas
Hallowell Center, Athens, Greece

It is widely accepted that traumatic experiences during critical stages of child development can predispose in clinical conditions such as anxiety, depression, post traumatic stress disorder symptoms, personality disorder etc. The research about the developmental implications of trauma on the biological systems responsible for the modulation of stress is on its early stages. The involvement of endocrinological and neurochemical changes has long been described. Recently, neuroimaging as well as molecular genetics findings have been reported. The exploration and understanding of the above biological mechanisms may lead to preventive strategies or more effective treatment for children who have fallen victims of abuse, neglect or trauma.

S29
Pertinent changes in adult brain neurobiology due to trauma
Christos Tsopelas
Psychiatric Hospital of Attica, Greece

Introduction: Contrary to the general feeling of safety and stability in contemporary western societies traumatic events arise by nature unrepentantly due to natural disasters, terrorism or criminal acts. People affected in events alter brain development in early ages and differentiate the structure and function of several areas in the adult brain.

Methods: We perform thorough research of main medical databases, and web search engines for relevant studies with related key words and scrutinize them, before concluding about appropriateness.

Results: There are important and complex alterations in neurobiological networks that are responsible of triggering defensive reactions of autonomic, immune and endocrine systems forming different aspects of posttraumatic stress disorder. Brain areas involved are thalamus, amygdala, hippocampus, neocortex, corpus callosum and different neurotransmitter systems are accordingly implicated.

Conclusion: The symptomatolohy of mental disorder is the aftermath of extraordinary events that unrepentantly due to natural disasters, terrorism or criminal acts. People affected in events alter brain development in early ages and differentiate the structure and function of several areas in the adult brain.

S30
Psychological treatments of trauma consequences in mental health
Ioanna Gannopoulou
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Introduction: Survivors of different trauma events may present with different severity and length of symptoms. Various theoretical paradigms have been applied to understanding post-traumatic reactions but each model has its advantages and limitations to the extent it explains the post-trauma phenomenology.

Aim: This presentation will focus on the integrative model of adjustment following trauma events (i.e. stimulus, appraisal, emotional state, personality, socio-cultural factors and coping strategies) and its implication for clinical practice, with particular reference to various methods of psychological treatment, planning and implementing psychosocial interventions.

Conclusions: Psychological treatments based on CBT models are an integral part of delivering effective therapeutic interventions.
**S31**

Pharmacological treatment in mental health disorders after trauma

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**Introduction:** The treatment of psychological trauma depends partially on the type of emotional problem being presented, the time that has passed since the traumatic event(s), and the availability of means. However, it should be stressed that cognitive and behavioural treatment approaches work very well.

**Aim:** This presentation will focus on the pharmacological treatment of the psychological sequelae of trauma, reviewing the literature on effective drug treatment. Results: Almost all types of psychiatric medication have been tried in order to alleviate the psychological symptoms associated with trauma. The most efficacious are considered to be the antidepressants.

**Conclusions:** The best results are anticipated with a treatment combination of pharmacotherapy and psychotherapy, individual or in groups.

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**S32**

The general problem of increased somatic comorbidity in bipolar patients

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There is an increasing recognition that bipolar disorder is associated with elevated mortality and morbidity rates. Although there are still some doubts whether schizophrenia impairs physical health more than other disorders, recent papers [1, 2] have demonstrated that bipolar disorder impairs metabolic and cardiovascular systems as much as schizophrenia.

Reported prevalence of metabolic syndrome (MetS) in patients with bipolar disorder varies from 18% to 32% in the European Union (EU) and 40% to 49% in the United States of America (USA). These rates are substantially higher than that reported for the general population (15% EU, 27% USA) [3], and very similar to that reported for patients with schizophrenia (19.4% to 44.7%). Much less attention has been paid to cardiovascular risks in these patients. Two recently published studies [1, 2] demonstrated higher cardiovascular risk level than the general population. Furthermore, the Spanish study [4] demonstrated that Spanish patients with bipolar disorder were exposed to the same cardiovascular risk level as Spanish patients with schizophrenia.

Unpublished data from our comparative study on physical health in patients with bipolar disorder versus patients with schizophrenia showed that bipolar disorder impairs physical health even more than schizophrenia. There were not statistical significant differences according to diagnosis neither in MetS rates (21.4% of patients with bipolar disorder versus 28.7% of patients with schizophrenia, p = 0.315), nor in the mean body mass index (bipolar = 30.3 versus schizophrenia = 30 kg/m2, p = 0.723), or in the BMI categories (obesity: bipolar = 43.4% versus schizophrenia = 43%, p = 0.964). However, patients with bipolar disorder reported greater proportion of hypertension than patients with schizophrenia (19.6% versus 6.2%, p = 0.008) and met criterion 4 - elevated blood pressure- for MetS in a greater proportion too (35.7% versus 13.8%, p = .001).

Psychiatrists must be aware of these facts and carefully monitor and control patients with bipolar disorder for components of MetS and risk factors of cardiovascular diseases as part of the standard of care when treating these patients. Furthermore, specific programs should be implemented for patients with bipolar disorder aimed at reducing cigarette smoking, increasing exercise, and improving dietary habits.

**References**


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**S33**

Increased metabolic and cardiovascular morbidity in patients with schizophrenia: recommendation for diagnoses and treatment

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Metabolic syndrome, diabetes and other cardiovascular risk factors are highly prevalent in people with schizophrenia. Patients are at risk for premature mortality and overall have limited access to physical health care. In part these cardio-metabolic risk factors are attributable to unhealthy lifestyle, including poor diet, high rates of smoking and sedentary behaviour. But over recent years it has become apparent that antipsychotic agents can have a negative impact on some of the modifiable risk factors. The psychiatrist needs to be aware of the potential metabolic side effects of antipsychotic medication and to include them in the risk/benefit assessment when choosing a specific antipsychotic. He should also be responsible for the implementation of the necessary screening assessments and referral for treatment of any physical illness. Multidisciplinary assessment of psychiatric and medical conditions is needed. The somatic treatments offered to people with severe and enduring mental illness should be at par with general health care in the non-psychiatrically ill population.

The recently published joint recommendations of EAP, EASD and ESC on diabetes and cardiovascular risk in patients with severe mental disorders should be implemented in all mental health services.

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**S34**

Metabolic alterations in patients with depression and their relationship to the etiology of depressive disorders

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*Annals of General Psychiatry* 2010, 9(Suppl 1):S34

Major depressive disorder (MDD) is an independent risk factor for the development of type 2 diabetes (T2DM) and cardiovascular disorders (CVD). Vice versa, patients suffering from T2DM or CVD bear an elevated risk of developing MDD. Recent epidemiologic studies suggest that MDD promotes the development of the metabolic syndrome (MetS), a well known risk factor for the development of T2DM and CVD. Furthermore, patients at risk for type 2 diabetes have a higher incidence of the MetS after a lifetime episode of MDD. These results point to an important role of MDD in the development of T2DM and CVD, and a bidirectional modulation between MDD and T2DM/CVD. Several risk factors for the above mentioned associations have been described. Among these, a dysregulation of endocrine and immune systems, sedentary lifestyle and adverse health related behaviors have been found. Recently, a dysregulation of the central energy metabolism has been proposed as a superordinated hypothesis to explain metabolic abnormalities in the context of depression. These findings expand our understanding of MDD as a complex, multi-etiological and multi-system disorder. As suggested by the joint recommendations of the EAP, EASD and ESC on diabetes and cardiovascular risk in patients with severe mental disorders, increased awareness of metabolic disorders is necessary in patients with depressive disorders.
S35
No health without mental health—towards a holistic approach
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The importance of the promotion and the protection of physical and recently mental health is globally well recognized, but little attention has been given to the interrelationship between the two. Poor physical health can make individuals susceptible to poor mental health. Similarly, we know that people living with mental health problems often live with physical health problems as well. A growing body of evidence is now showing that, indeed, persons with an enduring mental illness are at much greater risk than the general population for developing certain physical health problems, most notably cardiovascular disease, diabetes, obesity. This is the reason why, compared with the general population, people with severe mental illness lose 25-30 years of normal life expectancy.

A holistic, but individualized, approach is proposed which involve, deep knowledge from health professionals about how to deal with co-morbidities, direct communication between doctors and families, careful monitoring of individuals receiving health care interventions and better collaboration among primary care physical and mental health specialists.

S36
The EPA/EADS/ESC position statement on diabetes and cardiovascular risk in patients with severe mental disorders
Hans-Jurgen Möller
Psychiatric Department, Ludwig-Maximilians University, Munich, Germany

People with severe mental illnesses, such as schizophrenia, depression or bipolar disorder, have worse physical health and reduced life expectancy compared to the general population. The excess cardiovascular mortality associated with schizophrenia and bipolar disorder is attributed to an increased risk of the modifiable coronary heart disease risk factors, obesity, smoking, diabetes, hypertension, and dyslipidaemia.

Antipsychotic medication and possibly other psychotropic medication like antidepressants can induce weight gain and further increase the risk of adverse metabolic effects which may result in further increased incidence of cardiovascular disease. Patients have limited access to general healthcare with less opportunity for cardiovascular risk screening and prevention than would be expected in a non-psychiatric population. The European Psychiatric Association (EPA); supported by the European Association for the Study of Diabetes (EADS) and the European Society of Cardiology (ESC) published this statement aiming to improve the care of patients suffering from severe mental illness. The intention is to initiate co-operation and shared care between the different healthcare professionals and to increase the awareness of psychiatrists caring for patients suffering from severe mental illness to screen and treat increased cardiovascular risk factors and diabetes.

S37
Effects of sleep apnea and APOE ε4 status on follow-up of veterans with PTSD from the Vietnam conflict
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The purpose of this ongoing study is to examine the effects of sleep apnea in veterans of the Vietnam conflict who also have Post-Traumatic Stress Disorder. At the point of the first analyses of the project, 142 subjects were fully screened and 114 were found eligible. Of the 114 eligible subjects, 97 have obtained baseline Rey Auditory Verbal Learning Test (RAVLT) results and 85 have data completely scored and ready for analysis. Of these 85 completed eligible subjects, 47 have completed a 1 year follow-up, 10 have not yet been scheduled for 1 year follow-up because there has not been sufficient time elapsed since they enrolled and 28 did not complete 1 year follow-up for one of several reasons described below. This resulted in an overall drop-out rate of 28.75, or 37%, which is substantially higher than the 20% rate predicted on the basis of prior sleep studies.

One of the most striking findings of the study to date is that the drop-out rate after one year for subjects who have neither SDB nor the APOE ε4 allele is only 17%, but is 73% in subjects having both risk factors. Using logistic regression analyses, this effect is statistically significant for the ε4 carrier status (Wald Chi-square = 4.45, p = 0.03), as well as for the effect of AHI > 20 status (Wald Chi-square = 5.76, p = 0.02) but not significant for the interaction of ε4-carrier status and AHI > 20 status (Wald Chi-square = 0.003, p = 0.96). Thus, the effect of APOE ε4 status and AHI appears additive with drop-out rates of 40% and 44% respectively for each risk factor alone. In short, drop-out rates increase over 20% for each factor separately.

It would be extremely useful to understand why this disproportionate drop-out rate exists. Of the 85 subjects with complete data who were fully screened and entered into the study, 28 have not completed 1 year follow-up for reasons other than insufficient time elapsed since enrolment. Of these 28: 7 have been completely lost to follow-up (no telephone numbers, no recent CPRS records and no response to letters) and 5 of these 7 are ε4-carriers (71%); 17 have appointments overdue more than 1 month (contact information for subjects is active and correct but there has been no responses to inquiries) and 7 of these 17 are ε4-carriers (41%); and 4 consented to phone follow-ups, but would not return to the clinic and none of these are ε4-carriers (0%). Further data will be presented at the time of the conference.

S38
The mediating role of 5-HTTLPR in the background of stress vulnerability
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The serotonergic system has been found to play a crucial role in the development of affective disorders, and more recently a functional polymorphism in the serotonin transporter gene, the 5-HTTLPR has been found to be associated with different manifestations of depressive illness. Stress has also been implicated in the background of these disorders.

Research increasingly implicates that the s allele of the 5-HTTLPR leads to an increased vulnerability towards the development of depression, and this vulnerability can be manifested in several different forms. It seems from the evidence accumulating so far that the common pathway through which the s allele of the 5-HTTLPR mediates the development of affective symptomatology is influencing vulnerability towards stress and stressful life events. Our research has shown that the presence of the s allele leads to the emergence of such psychological traits which are associated with increased neuroticism and lead to less efficient coping mechanisms and less adaptive reaction in the face of adverse life events.

Neuroimaging data also supports that the s allele plays a role in influencing the reaction to stressful environmental stimuli, and animal data also indicate that the 5-HTTLPR genotype interacts with adverse environmental events in influencing the emergence of behavioural and neurochemical markers of stress reaction and affective disorders. Taken together this mounting evidence increasingly points to the conclusion that the 5-HTTLPR polymorphism plays a profound role in mediating the effects of stress and stressful life events.

S39
Stress in medical patients
Stavros Samolis
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It has been observed that the majority of medical patients demonstrate psychological distress (64%). A lot of studies have examined the
prevalence of anxiety and depression among several categories of medical patients such as: cardiovascular, general surgery, infectious and neurovascular patients. Another finding is that the prevalence of anxiety and depression in hospitalized medical patients is high, occurs mainly in women, and no relation to illness severity is observed. Anxiety and depression are associated with both illness perception of greater severity and less improvement. Several studies indicate a relationship among depression, anxiety, pain and hospitalization. Depression has a bidirectional relationship with cardiovascular disease, and it is observed in HIV-positive individuals, in cancer patients and it often complicates chronic pain. Other findings suggest that there is consistently high prevalence rates of depression associated with negative medical, functional, and psychosocial outcomes in hospitalized, medically ill, older adults. Screening for anxiety and depression should be included in the clinical interview carried out by the nurse or the doctor at the moment of admission to the ward.

S40 Stress in special groups
Michael Sotiriou
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Stress occurs when homeostasis is threatened or perceived to be so. The stress system with its central and peripheral effectors regulate the brain's cognitive, reward and fear systems, wake-sleep centers as well as the growth, reproductive and thyroid hormone axes, and influence the gastrointestinal, cardiorespiratory, metabolic and immune systems. Malfunction of the stress system might impair growth, development, behavior and metabolism, which potentially lead to various acute and chronic disorders.

The speech will be focused: a) On linguistics, where stress is the relative emphasis that may be given to certain syllables in a word and stress manifests itself in the speech stream are highly language dependent. b) Gender is an important biological determinant of vulnerability to psychosocial stress. Research studies focused on the sex differences in stress responses revealed individual differences in stress reactivity in addition to genetic, socio-cultural, hormonal and developmental factors. Women appear more physiologically reactive to social rejection challenges, but men react more to achievement challenges. Women's greater reactivity to rejection stress may contribute to the increased rates of affective disorders in women. Another study specifically indicates that women with the BDNF Val/Val genotype and men with the Val/Val may be particularly vulnerable to social stress mediated by brain stress system activity (Psychoneuroendocrinology, 2009). c) Poor self-concept, impatience, poor consequential thinking, inability to set realistic goals and to prioritize, poor resource management, poor health habits, over-dependence, infertility are some of personality-related stressors. d) Stress responses associated with possible implications for psychopathology during childhood, adolescents and older adults. Prenatal stress and maternal exposure to exogenous glucocorticoids can lead to permanent modification of hypothalamo-pituitary-adrenal function and stress-related behaviour. Childhood stress and trauma have been related to adult psychopathology in different psychiatric disorders. e) Some transitions and dynamics can lead families to excessive stress. There are many stresses in healthy and dysfunctional families. Research revealed that secure-base interactions between parents and adolescents facilitate physiological regulation of stress, especially for adolescents with externalising symptomatology. f) Finally, the effects of stress reactivity may lead to physical symptoms and disorders (e.g. hypertension, appetite and gastrointestinal problems, skeletal muscles increased tension, smooth muscles increased contraction, visceral obesity, hyperlipidemia, hyperglycemia, cardiovascular disease, type II diabetes, suppression of immune system). There is also a link between stress and fertility. Women with infertility report equivalent levels of anxiety and depression as women with cancer, HIV status, and heart disease. Men also suffer fertility related stress, though they frequently keep their anxiety to themselves for fear of adding to their partner's burden.

S41 Stigma by health and mental health professionals in comorbid states
Levent Kuye
World Psychiatric Association, Istanbul Bilgi University, Istanbul, Turkey

People with mental disorders are facing the double pressure of undertreatment both for their mental and physical diseases. The dimensions and burden of these problems associated with the high rates of medical comorbidity, disability, and mortality among people with mental disorders have been revealed in many recent reviews. This issue constitutes a major public health/mental health challenge and has serious consequences, including the stigma by health professionals. Efforts tackling the stigmatization attached to mental disorders have a history of almost couple decades. On the contrary, the stigma on the management of the somatic illnesses of patients with mental disorders is an issue that has only recently raised concern. Health/Mental health professionals can simultaneously be stigmatizers, stigma recipients and agents of de-stigmatization. The stigmatizing practices and approaches of the physicians, psychiatrists and the mental health workers on somatic illnesses and somatic treatments of patients with mental disorders is a serious aspect of the problem, and can be conceptualized as a reconstructed specific form of general stigma. The stigma by the health and mental health professionals especially on the treatment of medical comorbidities of people with mental disorders is the focus of this presentation. Hence, current researches on the relations of stigma and mental health professionals, general medical professionals, medical education, the care givers, and the cultural dimensions are reviewed. The conclusions warn us on reviewing the undergraduate and graduate training programmes in the context of current stigma theories and emphasize the need to improve our means of reducing the stigma among the mental health workers and the physicians.

S42 European Treatment Guidelines for schizophrenia
Wolfgang Gaebel
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One of the concrete projects resolved by the EPA European Platform of Psychiatrists concerns the development and implementation of evidence-based treatment recommendations in psychiatry with an European dimension named ‘Recommended Guidance’. The major objective is to improve quality of mental health care in Europe by providing evidence-based information and advice and to identify and minimize health care gaps. To provide such guidance for schizophrenia, one of the most serious and disabling disease in psychiatry and in general, an overview will be given of existing treatment guidelines in Europe. This overview will focus on the one hand on methodological quality, since an international survey in 2005 stated [1], that the methodological quality of the most guidelines was at best moderate. Major objective however will be discussing treatment recommendations regarding core clinical questions like early recognition and intervention, acute and long-term treatment. Participants hopefully from all over Europe are encouraged to engage in the discussion and to provide information from their national/regional treatment guidelines, mostly not available in English (or German) language.

Reference

S43 WF5BP Treatment Guidelines and the problem of evidence grading
Hans-Jürgen Möller
Psychiatric Department, Ludwig-Maximilians University, Munich, Germany

The World Federation of Societies of Biological Psychiatry (WF5BP) has developed several drug treatment guidelines. The following guidelines have either been published already or will be published soon [1-8].
References

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S45
Guidance in the ages of neuroscience

Lefteris Lykouras
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The task of evidence-guided practices is not an easy one. Scientific methods and evidence based practices are continuously growing in both quantity and quality. As a result, the gap between recommendations based on evidence and clinical practice paradoxically increases. There are several reasons for which guidelines use to be disregarded in everyday practice. First, there are always stakeholders staying out of consensus and therefore reluctant to support the implementation of its outcome. Second, most of guidelines are predominately focused on pharmacotherapy to the detriment of other treatment modalities. Third, in contrast to the practical life guidelines often lack the recommendations for physical health monitoring and treatment as well as the management of comorbidities, drug abuse etc. Clinical experience, on the other hand, can answer questions (and has to solve problems), which are not covered by evidence, e.g., individual responsiveness to a drug and to other treatment modalities, individual sensitivity to side effects, individual psycho-social situation, individual defence and copying mechanisms etc. Too extensive and rigid application of guidelines can decrease the clinical motivation of doctors, can slow down the process of therapeutic innovations and can even lead to malpractice. Psychiatry as a medical discipline is now challenged in terms of the classification (categorical vs dimensional), in terms of diagnostic validity, and in terms of optimizing the proportion of “science” and “art” in the world where professional decision making process is more and more driven by payers, by reimbursement policies, and by business administration.

S44
Recommended guidance beyond guidelines

Cyril Höschl
Prague Psychiatric Centre, Czech Republic

Hand in hand with an inflation of treatment guidelines across Europe, the gap between recommendations based on evidence and clinical practice paradoxically increases. There are several reasons for which guidelines use to be disregarded in everyday practice. First, there are always stakeholders staying out of consensus and therefore reluctant to support the implementation of its outcome. Second, most of guidelines are predominately focused on pharmacotherapy to the detriment of other treatment modalities. Third, in contrast to the practical life guidelines often lack the recommendations for physical health monitoring and treatment as well as the management of comorbidities, drug abuse etc. Clinical experience, on the other hand, can answer questions (and has to solve problems), which are not covered by evidence, e.g., individual responsiveness to a drug and to other treatment modalities, individual sensitivity to side effects, individual psycho-social situation, individual defence and copying mechanisms etc. Too extensive and rigid application of guidelines can decrease the clinical motivation of doctors, can slow down the process of therapeutic innovations and can even lead to malpractice. Psychiatry as a medical discipline is now challenged in terms of the classification (categorical vs dimensional), in terms of diagnostic validity, and in terms of optimizing the proportion of “science” and “art” in the world where professional decision making process is more and more driven by payers, by reimbursement policies, and by business administration.

References

The presentation will focus especially on the issue of relief of the core or most relevant symptoms of depression which can guarantee with a reasonably high probability a positive outcome under long-term aspects. The presentation will focus especially on the issue of relief of the core or most relevant symptoms of depression and the respective efficacy of antidepressant treatment. Agomelatine has demonstrated powerful antidepressive efficacy, amongst others in terms of improvement of depressive mood and at least some core symptoms of depression. This is also mirrored in the current diagnostic manuals. However, considering the frequency and clinical relevance of sleep disturbances, and interpreting this in the context of the aetio-pathogenetic hypothesis of disturbed circadian rhythm, sleep disorders can be interpreted as a core symptom in another sense. The same might be true for anxious symptoms, given the high neurogenetic association of depressive and anxious symptoms. Agomelatine has demonstrated powerful antidepressive efficacy, amongst others in terms of improvement of depressive mood and in terms of remission. According to its neurobiological mood of action, agomelatine has a special efficacy focus on disturbances of circadian rhythms and demonstrates clinical efficacy in this respect. Given the high frequency of anxious symptoms in depression and the comorbidity between depression and anxiety disorder, the efficacy of agomelatine in anxious symptoms also seems to be a beneficial aspect of the efficacy profile. Taken together, these findings show that agomelatine qualifies as an efficient option in the treatment of depression based on its broad efficacy on the full spectrum of depressive symptoms, including those occurring early as well as those that tend to persist late over the course of the disorder.
The most important pharmacotherapy-related factors of suicide in depression are: 1) lack of treatment, 2) inadequate treatment, 3) the first 10-14 days of the treatment, particularly in the case of insufficient care and/or lack of co-medication with anxioitics, 4) early termination of the therapy either by the patient or by the doctor, 5) lack of the long-term treatment in chronic or recurrent cases, and 6) nonresponse and treatment resistance. Most recent findings strongly suggest that antidepressant monotherapy (unprotected by mood stabilizers or atypical antipsychotics) can worsen the short-and long-term course of bipolar depression and increases the risk of suicidal behaviour [4].

References

SS51
Introduction to treatment guidance
Norman Sartorius
Association for the Improvement of Mental Health Programmes, Geneva, Switzerland

This symposium will address the requirements that have to be satisfied if guidelines produced in the field of psychiatry are to be useful. One of the presentations will address this topic in general and another focus on guidelines that are being produced for research. A third presentation will exemplify the problems that might arise in the production of guidelines as well as the use to which they can be put by describing the experience gained by the National Institute of Clinical Excellence in the UK. It is expected that the symposium will lead to a full interaction between the speakers and the audience. Ethical issues that arise in connection with the application of guidelines will be highlighted in the introduction and in the concluding presentation by the chairpersons.

SS52
What makes good guidelines?
Wolfgang Gaebel
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In the last two decades, a large number of national and international treatment guidelines have been developed, to assist practitioners in making decisions based on available evidence. However, according to a survey of schizophrenia practice guidelines for example [1], the methodological quality of the most guidelines was at best moderate. Hence, national and international institutions attempted great efforts to enhance guideline quality by describing and establishing characteristics for structure and process of their development. Beyond that, a ‘good’ guideline is expected to be effective, and thus to enhance outcome. Accordingly, an overview regarding methodological criteria for guideline development will be given. In addition, the results of empirical studies focusing the impact of treatment guidelines on health outcome will be summarized. As to the conclusions, developing guidelines based on highest methodological criteria is mandatory, however expectations regarding enhanced outcome in health care should be scaled down.

Reference

SS53
NICE guidelines
Stephen Pilling
Centre for Outcomes Research and Effectiveness, Research Department of Clinical Educational and Health Psychology, University College London, UK

This presentation will outline the programme of clinical practice guidelines developed by the National Institute for Health and Clinical Excellence (NICE) in the UK. This programme consists of over 20 clinical guidelines and covers all the major mental disorders. The methodological challenges in its development will be described, including the limitations of the evidence base and some commonly made criticisms of the NICE approach to clinical guideline development. The major successes of the programme will be described including work on schizophrenia, substance misuse and more generally on psychological therapies. The importance of a broad approach to supporting guideline implementation will be emphasised and illustrated by the development of the UK Department of Health Improving Access to Psychological Therapies (IAPT) programme and related work on therapist training and competence.

SS54
Guidelines for research: requirements and challenges
Silvana Galderisi
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Annals of General Psychiatry 2010, 9(Suppl 1):SS54

Research aimed to foster the understanding of causes and consequences of mental disorders and to improve their outcome should be a priority in the agenda of clinicians, researchers and health policy makers. Published guidelines for research in psychiatry have highlighted main requirements, which will be summarized and discussed in the presentation. Research in Psychiatry has to conform to ethical principles and rigorous scientific standards. Openness and transparency should characterize the management of eventual conflicts of interests; professional integrity and independence from external pressure and influence must represent an obligation. In addition to human research ethical principles, research in Psychiatry involves unique aspects relevant to the nature of mental disorders. Awareness of general and disorder specific ethical aspects has to be promoted among trainees and researchers and adequate procedures to deal with these aspects must be implemented. Studies should address clinically relevant questions, select the least vulnerable individuals to adequately answer the study questions; the design and methods should minimize risks and threats for patients and be adequate to address the study questions. Care must be taken to ensure privacy and patients’ freedom to leave the experimental protocol at any time without negative consequences for their clinical care. Translating these principles into everyday research activities is the present challenge for researchers in Psychiatry and for all those caring for the progress of the discipline. National and international educational programmes for trainees in Psychiatry, for investigators conducting research involving people with mental disorders, and for members of institutional review boards should be developed.

SS55
Impact of globalisation on social psychiatry
Marianne Kastrup
Centre for Transcultural Psychiatry, Psychiatric. Dept. Righospitalet, Copenhagen University Hospital, Denmark

We are living in a world of rapid change with the most drastic transformations taking place in developing countries. With increasing globalisation billions are forced to face a future so different from life when they grew up that few of their skills are able to assist them with new challenges. Change may result in insecurity, and unpredictability that many people may cope with difficulty. The process of globalisation is not uniform; and some claim that a result hereof is that differences between nations may decrease, but differences between individuals increase. Certain population groups run particular risks during this transformation. Such vulnerable groups may experience the consequences of globalisation as a negative influence on their mental health. From a social psychiatric point of view an important impact of globalisation is the risk of having inadequate access to health care including mental health care. Incentives should be encouraged that result in reducing inequalities among and within groups and nations. Globalisation is welcoming labor market flexibility, which leads to huge groups of unskilled labourers migrate in search for work. Such populations rarely receive social benefits or protection in case of illness despite the fact that they may have an increased risk of developing...
mental illness. The process of globalisation is not uniform. In most societies large gender gaps exist regarding access to e.g. education, economic development or adequate health care. Particular attention should be paid to that developmental initiatives are directed towards women thereby closing the gap with men regarding health and education. War and strife are prevalent, and displacement and refugee status are phenomena hitting millions worldwide. Again the distribution is skewed and the poorest parts of the world carry the heaviest burden. The mental health problems of these groups need increased attention from a global perspective.

Many ways may be taken to move forward. But psychiatrists globally need to recognize their responsibility in creating awareness and fighting for minimizing the existing disparities.

SS56
Social Darwinism and psychopathology
Andreas Erfurth
Clin Psychopharmacology and the Bipolar Spectrum Disorders Program, Division of General Psychiatry, Medical University of Vienna, Austria

In recent years, aspects of Darwinism have been widely discussed in psychiatry to explain the origins of mood disorders [1-3]. Authors were particularly focusing on the psychopathology of depression, while other considerations in the field of affective disorders have more broadly included the phenomena of mania [4] and temperament [5]. This paper will review aspects of Darwinism in the psychopathology of mood and its social consequences.

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SS57
What research is needed in social psychiatry?
Driis Mousaou
Ibn Rushd University Psychiatric Centre in Casablanca, Morocco

There is no such a thing as psychiatry without a social component. If the XIXth Century has been mostly dedicated to clinical descriptions and classification, if the XXth Century has been mostly therapeutic (psychotherapies, psychopharmacology and biological psychiatry), it is highly probable that the XXIst Century will be mostly oriented towards psycho-social psychiatry and mental health. Research will be an essential part of this evolution.

There is also a urgent need of education of young promising psychiatrists, learning the complexity of interactions between the psycho-social aspect and the biological one in psychiatry, but also the necessity using of a rigorous methodology.

There are plenty of topics which need to be investigated in social psychiatry. Some of the most important are:
- Migration and mental health, especially on the seemingly higher prevalence of schizophrenia among some groups of migrants;
- Religion, spirituality and mental health; as a matter of fact, they will play an increasing role in the future in the expression of psychopathology, and in psycho-social phenomena such as violence, substance abuse...
- Women’s mental health, especially peri-natal mental health and psychiatry;
- Ethics and its relative relativity from one culture to another in psychiatric daily practice.

SS58
Social rituals and onset of mental disorders
Aleksandar Janca
School of Psychiatry and Clinical Neurosciences, University of Western Australia, Perth, Australia

The concept of a prodrome, or the very earliest signs of the onset of a mental disorder, is well known in clinical psychiatry, and refers to disturbances of ordinary behaviour that may precede the behaviour and experiences that constitute recognised psychiatric symptoms and signs. In the literature, however, prodromes are described simply by means of lists of behaviours, such as avoidance of meeting other people, irritability, polite greetings absent or minimal, poor table manners, conversation avoided or kept to a minimum, and lowering of standards of personal appearance and hygiene.

To examine a relationship between social rituals and onset of mental disorders, we decided to develop an instrument to measure changes in ritualistic behaviour during the prediagnostic stages of mental illness, and explore whether it could be used as a tool for early detection of individuals who are in, or at risk of soon developing poor mental health. The result is the Social Ritual Interview, which consists of ten distinct domains which are based upon universal social rituals identified via extensive cross-cultural investigation.

Once the draft instrument was finalised, mental health professionals administered it upon 30 patients with a variety of mental disorders. The interview was then conducted with a close relative or other carer nominated by the patient, and the questions were asked in relation to the patient’s appearance and behaviour. Data analysis found moderate to severe changes in most of the ten social ritual domains, meaning there is often an observable disrespect of such rituals during the prediagnostic stages of mental illness.

References

SS59
The global effect of aripiprazole monotherapy in the spectrum of symptoms in bipolar disorder: a meta-analysis
Konstantinos N Fountoulakis
3rd Department of Psychiatry, Aristotle University of Thessaloniki, Greece

Background: The current article is a systematic registration and meta-analysis of the available clinical trials concerning the usefulness of aripiprazole in the treatment of bipolar disorder in affective as well as in psychotic symptoms.

Materials and methods: A systematic MEDLINE and repositories search concerning treatment guidelines and clinical trials for aripiprazole in bipolar disorder.

Results: The pooled effect size for acute manic symptoms was equal to 0.34. The NNT was 6 for aripiprazole vs placebo concerning response at week 3 and equal to 14 concerning remission. The average day response was day 3. The suicide rates were negligible for all groups. In contrast to the individual isolated trials, the meta-analysis for acute bipolar depression suggests a significant difference at week 8 with an effect size 0.17. The meta-analysis of the 4 trials which reported the efficacy of aripiprazole on psychotic symptoms during an acute manic/mixed episodes suggests that the effect size vs. placebo was equal to 0.14 but a more reliable and accurate estimation is 0.18 for the total PANSS score. The effect was higher for the PANSS positive subscale (0.28), PANSS hostility subscale (0.24) and PANSS cognitive subscale (0.20), and lower for the PANSS negative (0.12). No data on the psychotic symptoms during the depressive phase of bipolar illness exist. The maintenance data suggest that the median survival time for the emergence of a manic episode for the aripiprazole group was not evaluative, while the median survival time for placebo was 118-203 days.
depending on the clinical subpopulation. Concerning psychotic symptoms, at week 26 all except the total PANSS score showed a significant superiority of aripiprazole over placebo (d = 0.28 for positive, d = 0.38 for the cognitive and d = 0.71 for the hostility subscales) and at week 100 the results were similar (d = 0.42, 0.63 and 0.48 respectively).

Conclusion: The data analysed for the current study support the usefulness of aripiprazole during all phases of bipolar illness, inspite of the rather weak effect on depression and that the efficacy during the maintenance period is proven against new manic episodes and in patients with an index manic episode who responded to aripiprazole during the acute phase.

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**560**

Aripiprazole in bipolar disorder: clinical strategies to maximize efficacy and tolerability

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A number of double-blind, randomized, controlled trials have confirmed the clinical efficacy of aripiprazole in bipolar disorder and schizophrenia. Aripiprazole is the prototype of the ‘third-generation’ atypical antipsychotics, or dopamine-serotonin-stabilizers and is characterized by a relatively low risk of inducing metabolic adverse effects, causing sedation and other side effects such as hyperprolactinemia. As a partial agonist at dopamine D2 receptors, aripiprazole acts as a functional antagonist in the mesolimbic dopamine pathway, where excessive dopamine activity is thought to cause positive symptoms, but acts as a functional agonist activity in the mesocortical pathway, where reduced dopamine activity is thought to be associated with negative symptoms and cognitive impairment. This presentation will review the available research data on the efficacy of aripiprazole in bipolar disorder and discuss how this data translate in the real world clinical practice and what the best strategies are to maximize the efficacy and tolerability of this medication.

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**561**

The neurobiology of subjective tolerability to antipsychotic medications in Schizophrenia - is it also relevant to the genesis of comorbid addiction?

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One of the frequent but unrecognized side-effects of antipsychotic medications is the subtle alterations in subjective tolerability to these medications, including feelings of anxiety, distress and lack of pleasure, and which often lead to dislike and aversion to medications, with known serious clinical consequences. Yet, those very patients take to frequent abuse of illicit drugs.

One popular and frequently accepted explanation for such a high association has been the self-medication hypothesis, which proved inadequate to explain all aspects of this phenomenon. Until recently, the neurobiological basis for alteration in subjective tolerability and the negative dysphoric responses to antipsychotic medications has not been clear, though it was generally understood that somehow it relates to dopamine, since all antipsychotic medications have antidopaminergic properties. In a series of studies, including our recent experimental dopamine depletion SPECT study, we demonstrated for the first time the relationship between negative subjective tolerability and dopamine-binding ratio in the nigro-striatal area. Our findings explain to a large part why only some patients, not all receiving antipsychotic medications, experience dysphoric responses, since only those who have low baseline dopamine function are more susceptible to further dopamine-blocking effects.

Meanwhile, emerging evidence from research in the addiction field has implicated dopamine in the same neural circuitry in motivational and reinforcement behaviour, which is central to initiation and continuation of dependency states. It’s plausible, then, that what links vulnerability to addictions and negative subjective tolerability lies in a dysregulated dopamine signaling in the nucleus accumbens, resulting from frontal cortical and hippocampal dysfunction. Such a proposal, though many aspects of it have not yet been worked out clearly, and if confirmed represents a new rethinking of the concept of schizophrenia and its varied domains and manifestations and also has clinical implications in management.

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**562**

Treatment guidelines for acute mania

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Nowadays, psychiatrists have a wide range of treatment choices to treat acute mania. Introduction of atypical antipsychotics in the last decade has increased the range of available treatments. A good number of double-blind randomized clinical trials have supported the efficacy of several atypicals, (aripiprazole, olanzapine, quetiapine, risperidon, ziprasidon) both as monotherapy and in combination with lithium or valproate. I.m. formulations of aripiprazole and olanzapine have also shown efficacy in agitated patients suffering acute mania. More recently, asenapine (both as monotherapy or combination) and paliperidone (only monotherapy so far) have shown positive results and may deserve a second-line option according to the most recent clinical guidelines. Atypicals are recommended over typical antipsychotics due to a better short-term side-effect profile. Although not yet proved in meta-analysis, several trials show that atypicals also have a lower risk of switch to depression.

More “classical” mood-stabilizers, such as lithium, valproate, and carbamazepine also share evidence-based antimanic properties. However, some data show lithium being slightly slower in his action, and carbamazepine not being advisable in combination (negative results with risperidone and olanzapine, and not tested with other atypicals). Clinical guidelines usually recommend monotherapy with an antimanic agent to treat mild or moderate mania, and combination treatment (usually with lithium or valproate plus an atypical antipsychotic) for more severe mania. However, combination treatment is usually the rule in clinical practice, especially when the patient is already taking a mood-stabilizer with antimanic action, taking for granted adherence has been demonstrated. Pros and cons of these different approaches will be discussed, as well as differences among antimanic treatment combinations. The use of benzodiazepines in the short-term, for management of insomnia and psychomotor agitation is also a recommended strategy in most guidelines. For treatment resistant mania, there is some evidence supporting the use of clozapine, and ECT may also be a good option. Novel treatments, such as mexifenox, with four small positive randomized clinical trials, suggest new mechanisms of action that could be further understood in next years.

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**563**

Treatment guidelines for acute bipolar depression

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Bipolar depression is the facet of bipolar disorder most difficult to treat and responsible for most of the disability related to bipolar disorder.
Despite supposedly being evidence-based, guidelines for the treatment of bipolar disorder vary significantly across committees or working groups. While the usefulness quetiapine, the olanzapine-fluoxetine combination, lithium, valproic and carbamazepine is widely accepted, it is clearly stated that in bipolar depression antidepressants should be used only in combination with antimanics in order to avoid switching of phases. However there is still controversy over the usefulness of the various agents and modalities mainly due to little and poor evidence and conflicting opinions.

**S64**

**Long-term treatment of bipolar disorder**

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Lithium was one of the first effective drugs to be introduced to psychotherapeutics, and it remains an important treatment both for manic and for the prophylaxis of bipolar disorder. Its action in preventing recurrences appears greater against mania than against depression. A major trend in recent years has been the recognition that antipsychotic drugs are useful not only in mania and hypomania, but in preventing both mania and depression in patients with bipolar I disorder. The antiepileptic agent lamotrigine is useful in preventing depression and to a lesser extent in preventing mania in bipolar I disorder and in bipolar II rapid cycling. The place of valproate or carbamazepine in long-term treatment has not been firmly established. The effectiveness of lithium is limited by side effects and poor compliance. There is growing evidence that certain antipsychotic agents are associated with better compliance and greater effectiveness than lithium, although their metabolic and endocrine side effects can be problematic. Recent Guidelines recognize the role of antipsychotics in the long-term management of bipolar disorder, alongside lithium, lamotrigine and sometimes antidepressants.

**S65**

**How can guidelines help us in daily practice**

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There are a number of national as well as international guidelines on the treatment of major psychiatric disorders available. The World Federation of Societies of Biological Psychiatry (WFSBP) publishes guidelines on unipolar depression, bipolar disorder, anxiety disorders, addiction, eating disorders, dementia, just to name a few of them. Whereas national guidelines can limit themselves to the different kinds of medication that are available, a global perspective on guidelines needs to consider that there are different cultural beliefs and attitudes towards the disease, different legal and regulatory perspectives. Moreover, practice patterns change among countries and there are unique drug availabilities. Furthermore, the healthcare pay system might limit one or the other treatment option and specific treatments might not have support from professional bodies and opinion leaders. It is noteworthy to mention that treatment guidelines should not be viewed as rigorous algorithm which should be followed in everyday practice. However, the more summaries the more information is available in the literature to guide clinicians in their everyday clinical practice.

**S66**

**Integrating science and clinical practice in the understanding and treatment of mood disorders**

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The Hippocratic humoral theory is upheld in modern neuropharmacologic investigations showing depressive relapse with catecholamine-depleting agents. Serotonin dysregulation is supported, especially in females, in reduced 5-HT2A receptors in PET studies. Furthermore, the ancient concept of temperament and its role in depression is supported by current psychometric research. Despite increasing clinical and public health recognition, sophisticated research strategies and the broad availability of relatively safer agents for treatment, depression continues to be a prevalent group of illnesses which often pursue a recurrent and chronically relapsing course with considerable morbidity and mortality. Etiology is multifactorial, involving, among others, familial-genetic, demographic, developmental, personality, seasonal-circadian, experiential, interpersonal, conjugal, cultural and biologic factors. Grief, loss, and other life events, emphasized in Freud’s and Bowlby’s writings, as well as current clinical research experience, together with Darwin’s landmark work on evolution, place sadness and related emotions in an adaptive context. Current evidence indicates that experiencing life events depends on a familial diathesis for depression, and that temperament increases reactivity to the very life events that precipitate depression. Even social support, a factor that buffers the depressant effect of life events, appears to be dependent on familial factors. Finally, a positive family history of depression, seems to involve the amygdala. It is of great theoretical and clinical interest that the responsivity of the amygdala is mediated through such conditions as unipolar bipolar II and related affective personality styles. Response of aversive stimuli, too, appears to be processed through the limbic structures. Many medically associated somatic complaints—fibromyalgia, irritable bowel syndrome and migraine—appear to be part of the foregoing affective spectrum. Depression may precede, follow or complicate such common diseases as diabetes, myocardial infarction, stroke, and treatment of the associated depression often improves the prognosis of the underlying disease. Another provocative development is the continuity of unipolar and bipolar II disorders, which may in selected patients necessitate the use of antidepressant augmentation strategies.

Current treatment research involves complex methodologies in both the psychosocial and psychopharmacologic realms, which each clinician must practice as an art. Medications are best administered in the context of an ongoing therapeutic alliance. Prototypes of modern mood stabilizers [lithium, carbamazepine, divalproex, topiramate, gabapentin, lamotrigine] are efficacious via somewhat overlapping yet distinct mechanisms. Many antipsychotics [eg, perphenazine, risperidone, olanzapine, quetiapine, ziprasidone, aripiprazole] exercise prominent mood stabilizing effects. Finally, prototypes of antidepressants exert thymoleptic action via putative noradrenergic [desipramine], serotoninergic [fluoxetine], or dual chemical action [venlafaxine], possibly dopaminergic [bupropion?], and in the case of MAOIs such as tranylcypromine appear to involve all three neurotransmitters. Glutaminergic action represents a new fascinating vista beyond the scope of this presentation. Given that mood disorders do occur in a distinct minority of eminent and creative individuals, the clinician can appropriately weigh the relative advantages and limitations of these agents as well as their different side-effect profiles for a given patient in these populations.

**S67**

**Why treating early, treating well, and treating for life is important in schizophrenia**

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Schizophrenia is a progressive illness, with many psychotic episodes. Brain imaging studies have consistently demonstrated brain abnormalities in patients with schizophrenia. These changes are largely correlated to decreases in gray matter volumes and enlargement of the lateral and third ventricles. To date schizophrenia has been considered to result from abnormalities in neurodevelopment, with brain changes to be static. However, schizophrenia has long been thought to be a progressive or a degenerative, not a developmental, disorder. Indeed, Kraepelin considered the progressive clinical deterioration to be the hallmark of the disorder, naming it dementia praecox to reflect this
particular aspect. Lately, others have re-emphasized the importance of the decline in functioning in schizophrenia as a clue to its pathogenesis, suggesting that the brain abnormalities in schizophrenia could be expected to reflect this clinical progression. Indeed, we and others have reported brain abnormalities to increase over time in schizophrenia. Interestingly, not all patients show changes in brain volumes over time: we demonstrated that the changes are particularly pronounced in those patients with a poor prognosis in the first years of illness. Moreover progressive changes are most pronounced in the frontal and temporal areas as postulated by Kraepelin over a hundred years ago. Interestingly, white matter did not change over time. Also we found that brain loss over time was most pronounced in patients who had been psychotic longest. Finally, the progression in these frontal brain changes appeared to be attenuated by treatment with atypical, but not by typical antipsychotics. Thus, not only are brain changes progressive in schizophrenia, they are clinically relevant since they are related to outcome and may be reversed by some of the atypical antipsychotics. With the evidence pointing to a link between progressive disease and patient outcomes, it is becoming increasingly clear that every effort should be made to prevent psychotic relapses. Using medications with maximal effect is therefore warranted.

568 The need for efficient long-term neuroleptic treatment in schizophrenic patients and the place of long acting injectable antipsychotics
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Schizophrenia is a chronic disorder with a high risk of poor outcome in terms of symptoms and social functioning and possibly also progressive brain alterations. The relapse rate is high and each relapse can induce further aggravations. Thus, long-term treatment with the highest degree of effectiveness should be provided to the patients. Amongst others, the suitable drug for the individual patient has to be selected as well as the high risk of non-compliance to be carefully considered.

All the available evidence from randomised controlled studies indicates that antipsychotic medications substantially reduce the risk of relapse. The lowest dose should be chosen at which preferably no side effects occur, the risk of relapse seems to be optimally reduced and, if symptoms are still present, suppression of these is optimised. Side effects have to be assessed and, if necessary, pharmacotherapy has to be adjusted.

Despite several methodological design issues, second-generation antipsychotics have proven superior efficacy in preventing relapse to FGAs. Available studies of the specific agents supply evidence for periods of up to 2 years. Due to the decreased risk of EPS, especially tardive dyskinesia and the superior efficacy in improving negative, cognitive and depressive symptoms, second-generation antipsychotics should be preferred in long-term treatment.

Given all the known problems in compliance and discontinuation, which were underlined in recent years by the CATIE and the EUFEST study, depot preparations should be considered for optimum effectiveness in preventing relapse. Altogether, randomised, control-group studies to determine the long-term advantages of depot preparations of atypical neuroleptics compared to depts of typical neuroleptics are still lacking. However, the huge database for long acting injectable risperidone is so convincing in terms of efficacy, tolerability and effectiveness that its special place in the long-term treatment of schizophrenia becomes obvious.

The target strategy in long-term treatment of schizophrenia should be a combination of long-term antipsychotic treatment and psycho- and sociotherapeutic procedures, so that the relapse rate is further reduced and the course of disease can be further improved.

References

569 The role of RLAI in early schizophrenia treatment: critical aspects regarding efficacy and safety
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It is well known that there are high levels of response to treatment topatients with a first episode and early schizophrenia. This outcome is hampered by inadequate treatment adherence, which leads to relapse, and high sensitivity to side-effects. Risperidone Long Acting Injectable (RLAI) treatment has proven to be advantageous compared to oral treatment to these early patients, both clinically and pharmacoeconomically. RLAI has proven to improve treatment adherence, prolong time to relapse vs. more chronically ill patients, to improve patient functioning and also to achieve better symptom control in comparison to oral haloperidol, risperidone and also to patients switched from oral olanzapine. Therefore, treatment with atypicals and especially with RLAI for first episode and early patients can alter favorably the course of the schizophrenic disorder.

References

570 Polypharmacy in schizophrenia - therapeutic option or a sign of despair?
Anastasios Konstantinidis
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International guidelines on schizophrenia and worldwide experts in psychiatry recommend and insist on monotherapy with an antipsychotic medication for schizophrenic patients. Studies about the clinical practice of these guidelines show that all over the world most schizophrenia patients receive two or more antipsychotics. Further more combinations with antidepressants, mood stabilizers or benzodiazepines is also common. Regarding to local national differences polypharmacy rates are increasing and achieve rates between 50 and 90% of schizophrenic patients, exhibiting therefore a major international trend towards polypharmacy. Although in some cases combination therapy brings advantages, such as “enhancing” or “speeding up” the antipsychotic effect, there are still a lot of disadvantages in a polypharmacy treatment regimen, such as interactions of the drugs being involved, the greater risk of adverse reactions and the lack of compliance to treatment regimen. Small, randomised controlled studies with regard to antipsychotic combination therapy exist. In summary they exhibit a positive outcome for combinations of antipsychotics with different receptor profile. Altogether according to the study results combinations can be divided in irrational (e.g. clozapine and quetiapine), and rational ones, which provide a greater efficacy (e.g. clozapine and amisulpride).

Augmentation with antidepressant agents in case of persisting negative symptoms and with mood stabilizers in patients with additional affective symptoms can be recommended. Further randomised controlled studies are necessary to recommend combination strategies on a higher level of evidence for treatment resistant schizophrenia patients. In the speech given, I would try to give you an overview and discuss current data and trends in combining antipsychotic or other psychotropic treatment in schizophrenia.
571  
New patients, new disorders, new drugs and the rise of prescriptions  
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Portuguese Association of Biological Psychiatry and Portuguese Authority of Drugs and Pharmacy, Portugal  

The rise of prescription of psychotropic drugs is a major healthcare problem namely in Psychiatry. The reason of the rise is not clear and many questions remain unanswered. Furthermore, we have more patients, more drugs, more resistant and demanding patients and more polypharmacy. Inappropriate prescribing and lack of rational is not uncommon and prescribing education is also a main concern. Although, the use of guidelines for treatment could make clinical work easier they differ in their objectives and contents. We will discuss the doctor's capacity to make more diagnosis, the problematic of out of label prescriptions and the potential of abuse of some medication and the implications in the rise of prescription. The continuous update and training in clinical psychopharmacology and joint decision-making process between clinicians will allow a rational approach to treatment.

572  
Are depressive residual symptoms independent of treatments?  
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Residual symptoms occur in many depressive patients after acute treatment [1]. There is growing evidence that residual symptoms are also prevalent in bipolar disorder during the euthymic phase and in unipolar depression, they are predictors of early relapse [2,3]. In long-term outcome, patients remitting from depression with residual symptoms, have more depressive symptoms and impaired social functioning, thus needing more aggressive treatment [4]. Residual symptoms might be conceived as the persistence of the original mood disorder, despite in a milder presentation, or still be in relation to the neurobiological disorder substrate. Residual symptoms include core mood and functional symptoms of depression. The most common residual symptoms are sleep disturbances, fatigue, and disinterest. The clinician should be aware that patients despite being in apparent remission should be questioned thoroughly in order to identify residual cognitive difficulties, impairment of work and activities, psychotic anxiety, sleep disturbances or mild depressive mood [5]. The consequences of low-quality remission impairing psychosocial functioning have to be emphasized. In this presentation we will review the available evidence of the role played by the pharmacological treatments in the residual depressive symptoms.

References  

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Psychopharmacology at the era of EMEA (European Medicines Agency)  
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In the last decade the European Medicines Agency has been attempting to harmonize the work of the existing national medicines regulatory authorities and the data regarding efficacy criteria and safety for the use of human medicines in specificopathologies (eg. Schizophrenia, Bipolar Disorder, Depression), thus creating guidance notes for clinical investigation. Medical prescription decisions are generally made upon data acquired through scientific information (treatise, studies, consensus, meetings, congresses), specialists experience and pharmaceutical industry information. While prescription rules are established for approved indications by large scale studies, off-label prescribing lacks the support of robust clinical trials and is at its best based on expert consensus. It brings with it increased responsibility for the prescriber if the patient suffered an adverse reaction, as liability would rest with the prescriber and/or their employers. Nuclear information for a rational plan, risk assessment, scientific evidence for add-on therapy and off-label prescription, will be discussed in this presentation.

574  
Medical care and long-term treatment of patients with schizophrenia: ethical concerns  
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Despite the improvement in mental health care that has occurred in the last decades, the mortality risk in patients with schizophrenia has not been changed, and there was even an increase in the mortality of these patients when compared to the general population. The main causes for this increased mortality are somatic diseases, especially diabetes, hypercholesterolemia, hypertriglyceridemia, cardiovascular diseases (including arterial hypertension), obesity, HIV infection/AIDS, hepatitis C and osteoporosis [1]. The link between second generation antipsychotics and cardiovascular risk factors has raised questions on their overall safety, and these concerns are even more important if patients are on compulsory treatment. Furthermore, at least half of patients suffering from schizophrenia have one co-morbidity not diagnosed or wrongly diagnosed [2]. In a sample of 476 community patients suffering from schizophrenia, we found rates of diagnosed hypertension of 6,9%, hypercholesterolemia of 9,0%, hypertriglyceridemia of 6,3%, and diabetes of 4,2%. Not only these figures are lower than in other large studies, but also apparently only 12 to 30% of the patients presenting these disorders were being treated for these conditions [3]. Barriers to recognition and management of physical diseases in patients with schizophrenia are related both to health care providers and to patient/disease. Acute admission could be a target for the screening and treatment of these disorders, and we tried to find a screening protocol for this situation. Acutely ill patients have higher rates of infections and liver abnormalities, but lower rates of hypercholesterolemia [4]. In our sample more than 80% of patients with schizophrenia are retired or unemployed. Resources are scarce, and their allocation to these patients can prevent the access of people suffering from other disorders to the care they need.

References  
Temperament and major depressive disorder
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The Lebanese-Arabic TEMPS-A (Temperament Evaluation of the Memphis, Pisa, Paris and San Diego Autoquestionnaire) was used to assess the association between affective temperament and mental disorders in a nationally representative sample of the Lebanese Evaluation of the Burden of Illnesses and Needs Of The Nation study (L.E.B.A.N.O.N). The five affective temperaments were associated with mental disorders with anxious temperament having a risk role while hyperthymic temperament having a protective role. This presentation will focus on the specific association between temperament and the age of onset of major depressive disorder.

Clinical approach of alcoholism through affective temperaments
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In the past recent multiple efforts have been made to subtype alcoholism beyond ICD-10, mainly to understand the course of the disease and its neurochemistry. The typology of Otto Lesch [1,2] has received considerable attention due to its practical value and its relevance for the prediction of treatment response. While the comorbidity of alcoholism and affective disorder has been thoroughly studied [3], the role of subthreshold affective disturbances and the role of temperament remain unclear. At Vienna University Hospital he have studied consecutive admissions of patients with alcoholism by assessing temperament and subthreshold hypomania.

Our data show a clear link of the Lesch typology to the clinical burden of hypomaniac and cyclopathic features. Implications for prevention and long-term treatment will be discussed.

References

Cyclopathic temperament and/or borderline personality disorder
Giulio Perugi
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Many patients within the Bipolar spectrum, especially when recurrence is high and the inter-episodic period is not free of affective manifestations, may meet criteria for personality disorders. This is particularly true for cyclopathic patients, who are often misclassified as borderline personality disorder because of their extreme mood instability and reactivity. In patients with cyclopathic temperament, lifetime comorbidity with anxiety disorders, in particular panic disorder-agoraphobia, bulimia nervosa, body dysmorphic disorder, alcohol and substance abuse disorder and both cluster C (anxious) and cluster B (emotional) personality disorders, is the rule rather than the exception [1]. In particular, a large proportion of these patients meet DSM-IV criteria for borderline personality disorders. Cyclothymic-bipolar II borderline patients display a long-lasting “stable” hyper-reactivity to many psychological (i.e. rejection, separation) and physical (i.e., food, light, drugs) stimuli. This marked reactivity of mood could also explain the frequent concomitance of impulse control disorder and substances and alcohol abuse. An analysis of the explanatory power of affective temperaments and personality disorders for each of the criteria of BPD (Perugi et al., in press) revealed that the presence of cyclothymic temperament explains much of the relationship between bipolar II disorder and BPD. The diagnosis of BPD in these patients was favored by the coexistence of an affective cyclothymic temperamental dysregulation coexisting with anxious-dependent traits. We find no reason to separate bipolar II with cyclothymic instability from the stable instability of the borderline type, because mood lability is a common characteristic of both sets of disorders. Further, correlational analyses [2] indicate that in bipolar II atypical depressives mood reactivity and interpersonal sensitivity traits might be related constructs with a cyclothymic temperamental matrix.

References

Temperament and schema-focused diagnosis in soft bipolarity
Elie Hantouche
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The current concept of Bipolar Spectrum is still evolving and much more interest is focused on the definition of Hypomania (BP-II Disorder) and especially Cyclothymic Disorder. In order to get the entire diagnosable range of bipolar conditions, the clinical approach must go beyond “polarity” of episodes: family history, age of onset, time course (circularity), level of recurrence, type of cyclicity (exogenous/endogenous), and especially affective temperaments. Clinical researches have been dedicated to explore affective temperaments and their role in psychopathology of mood disorders. Cyclothymia appears to be a likely precursor or a basic primary ingredient of the construct of soft bipolarity. The French studies directed by Hantouche and Akiskal showed that Cyclothymia is probably the most frequent expression of bipolar disorder, and represents a distinct entity with early onset, irritable (“dark”) hypomania and high suicide risk. Despite these facts, there is a lot to learn about Cyclothymia. In the “psycho-education group therapy” model for Cyclothymia, elaborated in the CTAH, we recently addressed the following issues:
- Links between Cyclothymia and Bipolar Mania, dimensionally explored by the HCL-32 (Angst)
- Relationships between affective temperaments, especially Cyclothymic Temperament (assessed by TEMPS-A) and temperament (as measured by the Adult Temperament Questionnaire and the Affective Intensity Scale)
- Role of Cyclothymia in the “schema-focused approach” (J. Young)
- Expression of Cyclothymia through psychological vulnerabilities and interpersonal conflicts

Preliminary data will be presented.

References
579
Brief interventions for reducing drinking in veterans with Hepatitis C
Bret Fuller
NW Hepatitis C Resource Center and Staff Psychologist, Portland VA Medical Center, Portland, Oregon, USA

The prevalence of hepatitis C (HCV) infection among veterans treated within Veterans Affairs Medical Centers (VAMCs) is 3 to 4 times higher than the general population prevalence of 1.8%. Approximately 50 to 60% of patients with HCV are at risk for progression to end-stage liver disease. The risk for progression to end-stage liver disease is significantly increased in individuals with heavy alcohol consumption and veterans with HCV have a high rate of co-morbid alcohol use. Treatments that reduce or eliminate alcohol consumption among HCV-positive veterans may reduce the impact of the disease for the individual. Motivational enhancement treatments (MET) have shown the greatest efficacy in treating alcohol use disorders in general. Further, medications that reduce alcohol craving and consumption, that are also not metabolized in the liver are equally beneficial. The objectives of this presentation are to detail two ongoing studies at the Veterans Affairs Medical Center that aim to reduce alcohol consumption for veterans with hepatitis C. The first study assesses the efficacy of MET to reduce number of drinking days over the period of six months. This study is being conducted in two VA Medical Centers and compares a four session MET intervention to a four session educational (control) intervention. The second study being conducted at three VA medical centers assesses the use baclofen, a generic medication approved for use in muscle spasm that has been shown in initial trials to reduce alcohol craving and consumption. Baclofen is not metabolized in the liver and is potentially ideal for patients with HCV. Both non-medication and medication interventions are crucial strategies for improving the health of veterans with HCV who have co-morbid alcohol use.

580
Medication treatment of alcohol use disorders in veterans with Hepatitis C
Peter Hauser
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Hepatitis C viral infection (HCV) is the most common chronic blood borne viral infection in the world and in the United States affects approximately 1.8% of the general population. The prevalence of hepatitis C viral infection (HCV) is 3-4 times higher among veterans who use VA services than the general population rate of 1.8% and is estimated to be approximately 5 to 6%. A national VA study found that over 75% of veterans had some Substance Use Disorder. At the Portland VAMC, 57.6% (n = 783) of veterans with HCV recently seen in the hepatology clinic reported consuming alcohol in the past year and approximately 25% reported heavy alcohol use (AUDIT C score of 4 or greater). Alcohol use and HCV are thought to act synergistically to accelerate liver damage and cirrhosis. Several studies show that heavy alcohol consumption increases the risk of fibrosis progression as well as the risk of end-stage liver disease and cirrhosis in HCV patients. Among them Corrao and Arico (1998) found, among all patients who do not drink alcohol, HCV-infected patients are 9.2 times more likely to develop liver cirrhosis than non-HCV-infected patients. They also found that there is a dose-dependent relationship between lifetime daily alcohol intake, HCV infection, and risk of developing cirrhosis. Compared to HCV patients who do not drink, the risk of cirrhosis was three times higher in HCV patients who drank 75 to 100 grams per day, 16 times higher in HCV patients who drank 2175 grams per day of alcohol than HCV patients who did not drink and over 140 times higher than people who did not have HCV or drink alcohol. Effective treatments for alcohol use problems have not been studied in patients chronically infected with HCV and current FDA-approved medications for AUD can adversely affect the liver and are generally not well tolerated. The presentation will review current FDA-approved as well as off-label use medication studies for Alcohol Use Disorders and their utility for people who have hepatitis C and co-morbid Alcohol Use Disorders. The various treatment options will be discussed.

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Chronic pain and substance use in patients with Hepatitis C
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The hepatitis C virus (HCV) is the most common blood-borne infection and affects approximately 2% of the U.S. population, with higher rates occurring in some segments of the population. Chronic pain affects approximately 35% of the general population, with 15% of individuals experiencing daily pain. In contrast, the prevalence of chronic pain among HCV patients may exceed 65%. The reasons for the high rates of chronic pain among HCV patients are not clear. More than two-thirds of HCV patients have a history of substance use disorder (SUD), and history of SUD is associated with the development of pain. HCV patients also have high rates of co-morbid psychiatric disorders, which are also associated with chronic pain. The purpose of this presentation will be to outline the issue of chronic pain and substance use among HCV patients and to describe factors that may lead to the high rate of chronic pain in this patient population. The results of ongoing studies that examined the role of biopsychosocial factors in the development and exacerbation of chronic pain in HCV patients will also be described.

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Cross-cultural psychopharmacology: a review
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Cross-cultural psychopharmacology seeks to determine whether there are differences in responses to psychopharmacologic agents among various ethnic groups and the reason for such variations. During the past four decades numerous clinical reports have addressed potential differences in therapeutic dosages and side effects of psychotropic medications between various ethnic groups. In addition, several rigorously designed studies have focused on ethnic differences in pharmacokinetics (including absorption, metabolism, distribution and excretion) and pharmacodynamics (including receptor-coupling activity). These ethnic variations are mainly influenced by genetic predisposition but are also influenced by other factors such as culture, environment, psychosocial supports, and attitudes towards pharmacology. This presentation will provide a critical review of the existing information in regard to psychotropic medications including neuroleptics, antidepressants, lithium, and benzodiazepines among various ethnic groups. Also included will be data on neuroleptic-induced movement disorders, the clinical implications of genetic polymorphism of cytochrome P-450 isoenzymes, recommendations on how to better design a pharmacological approach in the treatment of psychiatric disorders among different ethnic groups, as well as recent advances and future directions regarding cross-cultural issues of psychopharmacology.

References

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Specific inhibition of adenylyl-cyclase isof orm 5 by mood stabilizers may be related to their mechanism of action
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Lithium, valproate and carbamazepine decrease brain cAMP. Adenylyl-cyclase (AC), which synthesizes cAMP has nine membrane-bound
The psychological impact of September 11 terrorism
Considering the prevalence of the PTSD across children, care for the elderly, many benefit from an appropriate treatment. Observing horrible scenes may lead to PTSD, also it is important to manage the symptoms promptly. The aim of our study was to investigate the clinical outcome of patients who underwent surgery in the elderly: the evolving role of palliative care in general surgical practice. The elderly are forming an increasingly larger proportion of the population. Some studies have shown that surgery may present too great of a surgical risk due to less favorable cardiopulmonary dynamics. Elderly traumatic brain injury patients have a worse mortality and functional outcome than nonelderly patients who present with head injury even though their head injury and overall injuries are comparably worse. However, they are usually more aggressive approach to early resuscitation and optimization of cardiopulmonary dynamics. An awareness of the importance of preexisting medical conditions and a coordinated, directed approach to the management of the injuries and the concomitant diseases may lead to the most effective care. Upon recovery from injury there is often a change of functional level that precipitates a change in social circumstance.

Prevalence of PTSD in the Kerman students witnessing the Bam earthquake scenes on TV
Farshid Khoraspopour1, Marjan Farahmand2, Rostam Yazdani1
1Psychology Department, Islamic Azad University, Zaran Branch, Kerman, Iran; 2High Technology, Roshd Center, Kerman, Iran; 3Medical Science University, Kerman, Iran

Background: Observing horrible scenes may lead to PTSD, also it is possible that observing these scenes on TV may lead to PTSD, however it is controversial.

Materials and methods: Using a cluster sampling procedure, 300 students from the Kerman schools were selected. A PTSD symptoms check list along with the DSM-IV diagnostic criteria were used to detect the symptoms 3 months after the Bam quake. All of them witnessed the Bam earthquake scenes on TV for at least one hour.

Results: Result indicated that 195 were without any symptoms, 40 had the re-experience of the events in the form of repetitive remembering, 20 had avoidance behaviors, 19 had showed irritability, and 16 had detachment, and 10 had the full picture of the PTSD.

Conclusions: Considering the prevalence of the PTSD across children, care should be taken regarding observation of the horrible scenes by children.

References

Use of Insiprins Process Spacers in elderly people: preliminary experience
Nikolaos Symos*, Charalampos Iliadis, Vasilios Valadakis, Konstantinos Grigoriou, Dimitrios Arvanitakis
Neurosurgical Department, Venizeleio General Hospital, Heraklion, Crete, Greece

Background: The spines are located in the very back of the spinal column near the skin surface. In fact, by passing the hand down the center of the low back one is usually able to feel several small prominences. These are the spinous processes. The near proximity of the spinous processes to the skin allows for the implantation of interspinous process spacers with minimal operative intervention and spinal morbidity. The interspinous process devices are designed to distract (open) the foramen, where the nerve endings pass away from the center of the spinal region and into the legs. It is thought that these devices may also unload the intervertebral disc. They may limit spinal extension (the position the spine takes on when bending backward). This backward bending position may be painful for patients with spinal stenosis because it reduces the space available for the nerve roots in the exiting foraminal openings. The interspinous devices may be implanted with the patient under a mild sedative and local anesthesia as a day surgery procedure (patient goes home the same day) or under light anesthesia. This may be particularly beneficial for elderly patients for whom more extensive open surgery may present too great of a surgical risk due to less favorable general health and fitness level.

Aim: Aim of our study was to investigate the clinical outcome of patients with symptomatic lumbar spinal stenosis before and at periodic intervals after interspinous process spacers implantation.

Materials and methods: 33 consecutive patients over 65 years old, were enrolled and surgically treated with interspinous process spacers implantation. They were clinically evaluated at the preoperative 1 month, 3-month, 6-month, 9 month and 1-year stage with

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Farshid Khoraspopour1, Marjan Farahmand2, Rostam Yazdani1
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Conclusions: Considering the prevalence of the PTSD across children, care should be taken regarding observation of the horrible scenes by children.

References

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The use of Interspinous Process Spacers in elderly people: preliminary experience
Nikolaos Symos*, Charalampos Iliadis, Vasilios Valadakis, Konstantinos Grigoriou, Dimitrios Arvanitakis
Neurosurgical Department, Venizeleio General Hospital, Heraklion, Crete, Greece

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Tobacco smoking in eating disordered female patients
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1Ebier Renate psychiatrist private exercice 16 chemin du Calquet 31100 Toulouse, France, BERLIN Ivan department of pharmacology Pitie-Salpetriere Hospital Paris, France; Annals of General Psychiatry 2010, 9(Suppl 1):S87

Background: Some smokers use tobacco in order to control weight. It is conceivable that eating disordered women smoke for that reason. Aim: to describe smoking features in eating disordered women; to show differences according to types of eating disorder and to identify factors explaining tobacco use in this population.

Materials and methods: A retrospective study including two hundred women diagnosed for eating disorders according to ICD-10 criteria. We gathered socio-demographic features and evaluated tobacco dependence with the Fagerström questionnaire (FTND).

Results: The body mass index was the same in all smoking and no smoking eating disordered patients. FTND score and daily consumption of cigarettes in eating disordered smokers showed significant differences according to diagnostic groups of eating disorders. Age of smoking the first cigarette, age of beginning daily tobacco smoking and reasons of smoking did not display any significant differences between diagnostic groups. Daily smoking was much more frequent in bulimics.

Conclusions: Our study did not allow to reveal that tobacco is used to control weight in eating disordered women.

References

Historical back training in most important points of neurosurgery
Nikolaos Sympos 1,2, Georgios Ampatzidis 1,2, Anna Fachantidou 1,2, Ioannis Mouratidis 1,2, Christos Symos 1,2
1Department of Physical Education and Sports, Aristotelian University of Thessaloniki, Greece; 2Neurosurgical Department, University Hospital AHEPA, Thessaloniki, Greece; Annals of General Psychiatry 2010, 9(Suppl 1):S89

Background: The History of Neurosurgery begins with the presence of human in the earth. Begins from the depths of History (reports in Bible, Greek Mythology), as a part with Surgery until the last half of the 20th Century. Archaeological discoveries of human skull’s proved the affair that the first neurosurgical action is the trepanation of skull or trephination (Burr hole in the cranial capsule with hand working drill), from material proportional the epoch (stone - copper, iron, brass etc). Chronological probably before the presence of written proofs and the use of metals, perhaps and from this 10.000 B.C. This action perhaps presented as a cerebration (in dead), but also as therapeutic in alive. This is the first surgical technique that prepared the trepanation of skull or trephination and later the craniectomy.

Materials and methods: All of this came from discoveries of skulls and surgical instruments, and show that the first Neurosurgical interventions in Ancient Greece are reduced in the Minoan epoch (skull in the Aharnes), in the Mycnaean epoch (Mycenea’s skull, Argos). The study of the History is under a methodology as follows:

A) Prehistoric period
B) Historic period
C) Invention of typography
D) Invention of photograph - cinema
E) Modern period

A more important steps in the History of Neurosurgery are the following:

- Prehistoric period
- Prehistoric neurosurgery
- Embryonic period
- Babylonian and Egyptian Medicine
- Greek - Roman and first Byzantine Period

The origins of Neurosurgery
a) Greek period - Greek Ancient (5th b.C. Century)
b) Roman Period
c) Early Byzantine period
- Arabic Period - Mediaeval Period
  a) Arabic Medical School (750 - 1200 a.C.)
  b) West-European Medieval (1000 - 1400 a.C.)
- Neurosurgery in 16 - 19th Century
  a) 16th Century
  b) Anatomy exploration
  c) 17th Century
  d) Origins of Neurology
  e) 18th Century
  f) Adventures Surgeons - Neurosurgeons
g) 19th Century
  h) Advances in Surgical - Neurosurgical Techniques
  i) Historical Review in Anatomy - Physiology of Nervous System
  j) The development of Neurosurgery is under investigations for Nervous System with improvement in Anatomy and Physiology:
    - Brain
    - White- Gray matter
    - Cerebellum
    - Ventricular System of the Brain
    - Arterial - Venous system of the Brain
    - Cerebral sulcus - Gyrus
- The creation of Speciality of Neurosurgery

Results: Neurosurgery as speciality it would have never become without progress in neuroanatomy, neuropathology, neurology, radiology, angiography of C.N.S. and neuroimagine (CT, MRI etc), and the importation of technology in Medicine, with researchers to progress of Neurosurgery.

The Neurosurgery in 1900-1940 represented by William Harvey Cushing (1869-1939) (the father of Neurosurgery) and Walter Edward Dandy (1886-1946), leaders in the History.

The History of Neuroimagine methods

The brain and the spinal cord under anatomic nature and place, for a lot of centuries kept well their secrets. Because existed difficulty of approach, as well as in localisation of the place of damage.

Surgery in C.N.S. is without probabilities and mistakes. The modern Neurosurgery began with the first imagine methods of X - rays in clinical practice.

The progress of imaging methods are with surgery of C.N.S., walking together as the diagnostic methods increases also surgical approaches are with bigger safety.

X-ray of brain

Angiography of brain

CT of brain

MRI of brain

The History of Neurosurgery in Greece

Beginns in the end of the 19th Century as a part of surgery and in the last decades of 20th Century as a new surgical speciality.

A’ Period (1900-1920)

B’ Period (1930-1950)

The speciality of Neurosurgery was established by V. Griponisiotis (1910-1993), Neurosurgeon and the first Professor of Neurosurgery after his election from Medical School of the A.U.TH. and director of the First Neurosurgical Clinic in 1966 in A.H.E.P.A. Hospital of Thessaloniki.

C’ Period (The beginning of modern Neurosurgery)

Conclusions: The History of Microsurgery

Microsurgery in the Neurosurgical practice constitutes the point (perhaps the biggest), because gives opportunities for successful development. The using of surgical microscope began in 1960 and in 1965 by M. Gazi Yasargil who came the first microsurgical intervention in the Brain (terminal by terminal anastomosis with superficial temporal cerebral artery with a remus of medium cerebral artery).

The microsurgery involves revolution in the Neurosurgery, because almost all the surgical operations can be performed by surgical microscope.

Today Neurosurgery and modern technology constitute the ideally combination for helping patients.

Reference


S90

Endophenotypic markers of bipolar disorder (BD) in probands and their first degree relatives with major depression (MD)

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Background: The aim was to investigate the cognitive profile among BD patients and their MD first degree relatives compared to controls.

Materials and methods: Participants were 48 BD, 21 BDMD and 70 controls. All participants underwent assessment of Full Scale IQ (WAIS-R), working memory (N-back), initiation and inhibition (HSCT), cognitive set shifting and mental flexibility (WCST), memory (WMS-III), decision making and judgement (IGT), sustained attention (CPT) and interference (SCWT).

Confrontation of diagnosis was made using Structured Clinical Interview for DSM-IV (SCID-I/II) and symptomatology was assessed with the HDRS and YMRS.

Results: No difference was found in IQ and initiation times 1 and 2 (HSCT). Deficits were found for both BD patients and their MBD compared to controls in inhibitory control. In the WCST controls achieved more categories compared to both BD and BDMD in addition to perseverative errors for the former but not the later group. In terms of CPT no difference was found among the 3 groups. Working memory (N-back) was impaired in BD but BDMD compared to controls. Decision making (IGT) was impaired in both BD and BDMD. BD patients underperformed in the SCWT. Finally, BD were impaired on all aspects of memory (WMS-III) whereas BDMD shared deficits with their probands in visual immediate and delayed memory, auditory delayed and recognition.

Conclusions: Response inhibition may be associated with genetic predisposition to BD, irrespective of phenotype. Abnormalities in auditory and visual delayed memory and recognition in addition to decision making and judgement may relate to disease expression, irrespective of specific diagnosis.

References


S91

Effects of rivastigmin tartарат in the therapy of patients with schizophrenia

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Background: Rivastigmin tartarat is a dual, reversible cholinesterase inhibitor (acetyl and butil). Its chemical composition is (S)-N-ethyl-N-methyl-3,1-dimethylamin - ethyl-phenyl carbamat hydrogen-(2R,3S)-tartarat. FDA has approved its use in treatment of Alzheimer dementia and dementia in combination with Parkinson disease. In addition to this, results based on small clinical studies and case reports showed positive effects of rivastigmin tartarat in therapy applied in numerous psychiatric disorders.

Materials and methods: In this study 11 patients have been observed. According to ICD-10 they all satisfied criteria for diagnosis of residual schizophrenia and had a score of below 24 at MMSE and high scores at NPI 12 and BPRS. During the period of 60 days, apart from antipsychotics and anxiolitics or psychostabilisers, patients also received rivastigmin tartarat in their therapy.
Results: The study showed that rivastigmine therapy produced significant improvements when it comes to cognition and reduction of disorders in the sphere of affective-behavioristic functioning of patients with residual schizophrenia. However, this interpretation cannot be confirmed to be completely valid due to the size of treated group, the absence of the control group, and the length of the observing period.

Conclusions: Dual cholinesterase inhibitors (Ach and BuCh) may produce improvement in cognition and behavioural performances, as well as the general quality of life with patients diagnosed with residual schizophrenia. Future studies applied on this kind of patients should precisely explain the basic farmacological mechanisms of rivastigmine tattarat, and approve/disapprove the results of clinical studies and case reports that have been preformed so far.

References

S92
Results of a new cognitive method in rats on the Morris water maze used in modeling experimental Alzheimer's disease
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Background: In Alzheimer's disease (AD) the loss of neurons in the hippocampal CA3 regions is present. In rats treated by sodium azide (NaN3) via subcutaneously implanted osmotic minipumps number of CA3 cells were decreased [1]. We developed a new method to produce AD-like dementia using single intracerebrally (ic.) injected NaN3 in rats.

Materials and methods: The CA3 neurons were chemically lesioned by intracerebrally administration of NaN3 in doses of 8 and 16 mg/ml to examine learning functions Morris maze was used. During acquisition trials animals had to find a black platform within 120 s. We measured the “escape latency”(sec). Detailed histopathology of brain was performed at the termination of the study. Learning function was measured after 7 days of ic. treatment.

Results: 8 and 16 mg/ml doses of NaN3 significantly decreased escape time in ic. Na3N treated rats compared to control animals. Neuronal necrosis, shrunken neurons, neurofibrillary tangle-like structures were seen in hippocampal area, also.

Conclusions: Decreased learning capability was induced by the ic. injection of 8 mg/ml and 16 mg/ml NaN3 dose in rats. We proved that with the new method, acut ic. injection of NaN3 produces comparable level of dementia caused by 31 days infusion of NaN3 using implanted osmotic minipumps [2], and it seems to be suitable to produce dementia in rats.

Acknowledgements: We thank Éva Kőrmöczi and Zsuzsa Halter for contributing to the experiments.

References

S93
Evolution of symptoms with antipsychotic treatment in schizophrenic outpatients in Greece: the GRACE Study
Dimitra Karadima, Ioannis Chatzimanolis, Errikos Tiebelikos, Venetanos Mavreas, Athanasios Fokas, Athanasios Kalogeropoulo, Simeon Deres, Theodosios Christodoulakis
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Background: To describe positive, negative and other symptoms evolution following treatment change, in schizophrenic patients in Greece.

Materials and methods: The GRACE study was a non-interventional observational, multicentre national survey. It involved 104 centres, proportionally distributed over Greece and observed patients diagnosed and treated for schizophrenia in the outpatients setting over a period of 12 months spanning from June 2007 till June 2008. Demographic and other patient characteristics including family status, educational level, living status, employment status, and centres monitoring patient’s condition were recorded. Positive (aggressive behaviour, disorganised speech/thinking, illusions, delusions), negative (affective flattening, blunted effect, avolition, social isolation) and other (affective symptoms, aggressiveness, sleep disorders, cognitive disorders) symptom changes were recorded and analysed prior and post treatment change. Statistical analysis was performed by McNemar’s Chi square statistic.

Results: In total, 2013 patients, mean age 39.7 ± 12.5, were included in the study, 54.4% of which were males and 45.6% females. Most of the patients were unmarried (64%), living with their family (64.4%) and unemployed (54.2%) at the time of screening. After treatment change to another antipsychotic agent positive symptoms significantly decreased by 23.6% (p < 0.005), negative symptoms remained unchanged and other symptoms significantly decreased by 15.9% (p < 0.05). Illusions, delusions and disorganised speech/thinking, were the positive symptoms with the most profound decrease (14% < p < 0.001, 13.1% < p < 0.005 and 5.4% < p < 0.005 respectively). No significant changes were observed in affective flattening, aggressiveness, sleep and cognitive disorders. All administered antipsychotic treatments were associated with significant decrease in positive symptoms, with ziprasidone, olanzapine, risperidone, quetiapine, aripiprazole, and aminosulpride showing more than 20% decrease (p < 0.001). Ziprasidone, aripiprazole, clozapine, quetiapine and aminosulpiride were associated with decrease in negative treatments, however only ziprasidone and aripiprazole decreases reached significance (p < 0.01 and p < 0.02 respectively). All agents, showed significant decrease in other symptoms (p < 0.01).

Conclusions: Negative symptoms remain difficult to control showing inconsistent patterns of symptom responsiveness. Currently available second generation antipsychotic agents appear to have minor to modest benefits on negative symptoms. All administered antipsychotics seem to have equal effectiveness in suppressing positive symptoms presented by schizophrenic patients in Greece.

S94
Adverse event occurrence and treatment change in patients with schizophrenia: the GRACE study
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Background: Currently available, second generation antipsychotics interact with dopamine and serotonin receptors presenting less extrapyramidal symptoms and better tolerability in the elderly. Safety data gathered until today show that adverse events is one of the major reasons leading to antipsychotic treatment change, while in the meantime there is substantial differentiation of adverse events experienced by patients under treatment for schizophrenia. The present analysis aims at assessing treatment changes made during the observation period of the study and record the frequencies of treatment change due to adverse event as well as other disease-related factors.

Materials and methods: The Grace study was a descriptive, cross-sectional, multicentre national survey conducted in the outpatient setting by 104 psychiatrists, proportionally distributed around Greece. Investigators registered one visit of each of the first 20 consecutive patients that presented at their consultation. Patient’s demographics, living status, smoking status, alcohol consumption, blood laboratory values, and data on the reasons leading to treatment change during the past 6 months were recorded. Additionally, the reason and the antipsychotic drug selected to carry on with, after the last treatment change were also specified.

Results: The observational period was from June 2007 to June 2008 and led to the recruitment of 2013 patients with an ICD-10 primary diagnosis of schizophrenia. Out of them 523 were being administered with a pharmacological treatment against schizophrenia. This population subset consisted of 51.6% men and 48.4% women, aged 39.9 ± 12.4 years. The mean number of treatment changes during the past 6 months was 1.85 ± 1.58 times. According to the investigators, the major adverse events that lead to treatment change were extrapyramidal symptoms (44.7%), weight gain (43.6%) and suppression (25%). For the most recent treatment change, apart from adverse event occurrence (61%), other reasons that led to treatment change, concomitantly present or not with adverse events, were “no signs of improvement” (37%) and “clinical deterioration” (21%).

Conclusions: Adverse events occurrence remains an important reason for treatment change in schizophrenic patients treated with second generation antipsychotic agents. Extrapyramidal symptoms and weight gain are precocious adverse events that should alert physicians for their early recognition and management.

S95 Reasons and patterns of hospitalization among schizophrenic patients in Greece: the Grace Study

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Background: Schizophrenia is one of the most frequent mental diseases with 1% probability among the whole population. Frequent hospitalization of schizophrenic patients is both a challenge to any health care system and a parameter that decreases patient quality of life and interrupts social functionality. The present analysis aims at assessing the current hospitalization pattern and at recording the most frequent reasons for hospitalization of schizophrenic patients in Greece.

Materials and methods: The Grace study was a descriptive, cross-sectional, multicentre national survey conducted in the outpatient setting by 104 psychiatrists proportionally distributed over Greece. Investigators registered one visit of each of the first 20 consecutive patients that presented at their consultation. Patient’s demographics, living status, attending monitoring centre for schizophrenia, data on current treatment administration, number of hospitalizations and reasons of hospitalization were recorded. The analysis presented here involved only the subset of patients that were hospitalized during the last 12 months from the patient’s visit to the doctor. Statistical analysis was performed by chi squared statistic, whereas magnitude of association is illustrated by odds ratios.

Results: The observational period lasted three months, from June 2007 to June 2008 and led to the recruitment of 2013 patients (mean age 39.7 ± 12.5 years old, 57.4% males and 42.6% females) with an ICD-10 primary diagnosis of schizophrenia. Out of the 2013 patients, 265 were hospitalized at least once during the past 12 months of the visit. The median number of prior hospitalizations was 3, one of which occurred during the past 12 months and lasting up to 27 days for the 50% of patients. Besides the attending doctor, 66.92% of the patients were not monitored by any other medical centre. The reasons for hospitalization were: clinical deterioration (62%), discontinuation of treatment (43%), family burden (17%), drug use (10%), adverse events (8%), suicide attempts (8%) or other (7%). Patients receiving aripiprazole were less likely to be hospitalized due to clinical deterioration (OR = 0.68, 95% CI: 0.49-0.92), p = 0.019, treatment discontinuation (OR = 0.77, 95% CI: 0.52-0.95), p = 0.024 and family burden (OR = 0.89, 95% CI: 0.80-0.99), p = 0.026), while patients receiving haloperidol were more likely to be hospitalized due to family burden (OR = 1.18, 95% CI: 1.01-1.36), p = 0.013.

Conclusions: Clinical deterioration, discontinuation of treatment and family burden remain significant reasons of hospitalization in schizophrenic patients in Greece. Aripiprazol may lead to less frequent hospitalizations due to these reasons. Most schizophrenic patients in Greece are not monitored by other health care centers except form their attending doctor and future investigations are needed to investigate whether changes in these practice could lead to better management of the disease.

S96 Stress and life satisfaction among university students—a pilot study

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Background: Life satisfaction has been described as an overall cognitive assessment of one’s quality of life. This assessment is based on how people believe their life should be in relation to how it is. Anxiety has a negative impact on well-being and life satisfaction seems to be highly related with life satisfaction among university students. Studies have supported that lower levels of life satisfaction have been related to high anxiety.

Materials and methods: The study involved 200 University students, sample taken from the National and Kapodistrian University of Athens and the Harokopion University (100 1st year and 100 4th year). Subjects were asked to complete the STAI-State & Trait Inventory and Life Satisfaction Index. The questionnaires were given to students to complete during their Fall and Spring semester studies.

Results: The mean ± standard deviation of the “life satisfaction score” was 4.3 ± 0.5. Moreover, the majority of participants (63.4%) were found to have low “life satisfaction” without any differences between the two sexes. Analysis of STAI showed that students low scores in STATE anxiety scale have high scores in life satisfaction scale whereas students high scores have low scores in life satisfaction (p = 0.005). Furthermore Trait Anxiety score analysis revealed non significant results. Treating the life satisfaction score as a continuous variable, it was found that the mean score (4.2 ± 0.4) of students of the 1st year was statistically significantly lower compared to students of the 4th year (4.4 ± 0.6, p = 0.005). Two-way ANOVA showed that the two-way interaction between the year and students’ sex (p < 0.001), state of anxiety (p = 0.034), were statistically significant.

Conclusions: According to the results of this study it can be suggested that students who have low anxiety scores have more life satisfaction. The fact that significant differences were found for the State condition and not the Trait could be explained by the perception and evaluation of the individuval. Determining the relationship between anxiety and life satisfaction in the university students could assist psychological counseling and guidance.

References

Bite wound related infections in rural areas of Macedonia-Greece: consequences on overall health

Nikolaos Symrós, Andreas Televantos, Stefanos Patakas, Nikolaos Kapoutzis
Surgical Department, Goumenissa General Hospital, Kilkis, Macedonia, Greece

Background: In this 20 year retrospective study (1989-2009) depicted injuries recorded as dog, cat, horse and human bites from one hospital (Goumenissa General Hospital, Kilkis, Macedonia, Greece).

Materials and methods: The injuries were 35 dog bite, 5 cat bite, 5 horse bite, 4 human bite. The incidence was higher in aged people (over 65 years old) and in children, dominant in males and were higher in summer. The highest humidity and highest temperatures was determined for dog-bites.

Results: In all the cases with the routine therapy (antitetanus vaccine, local debridement, Antibiotics) we achieved good results.

Conclusions: Bite injuries can contain a mix of anaerobes and aerobes from the patient's skin and the animal's oral cavity, including species of Pasteurella, Streptococcus, Fusobacterium, and Capnocytophaga. The most common pathogens associated with bite wounds are Streptococcus species, Staphylococcus aureus, Pasteurella multocida, Capnocytophaga canimorsus and anaerobic bacteria. Sporadically other pathogens are isolated from bite wounds. Human bites differ from animal bites by higher prevalence of Staphylococcus aureus and Eikenella corrodens. The lifetime risk of experiencing a bite wound, human or animal, is approximately 40%, and bite wounds account for approximately 2% of all visits to emergency departments. The majority of bite wounds are inflicted by dogs. It is important to be aware of the possibility of complicating infections following bite wounds, particularly after cat bites. Phenoxymethyl penicillin should be the drug of choice in treatment of infections associated with cat and dog bites. However, in case of slow recovery or no improvement, simultaneous lymphadenopathy or pneumonia, S. aureus or Francisella tularensis should be suspected; ciprofloxacin is recommended. For human bite infections the recommend treatment is phenoxymethyl penicillin in combination with penicillinase stable penicillin.

References
evaluate the efficacy, safety and tolerability of galantamine in long-term in Mild Cognitive Disorder.

**Materials and methods:** A multicenter, open label, prospective, observational study enrolled 800 patients, more 50 years old with Mild Neurocognitive Disorder (DSM IV criteria), during 24 months of treatment, with galantamine 16 mg/day. Assessments included the Mini Mental State Examination (MMSE), Clinical Dementia Rating (CDR), Alzheimer’s Disease Assessment Scale (ADAS-COG),Seven minutes test, Wisconsin card sorting test, Boston naming test, Token test, Raven Test, Trail-Peterson test, Trail making test, Functional Activities Questionnaire (FAQ), GO-NO-GO test, Global Deterioration Scale, Global Clinical Impression (GCI) and UKU scale of Adverse Effects.

**Results:** A total 800 outpatients were treated with 16 mg/day galantamine during 24 months, the therapeutic response evaluated with CDR, MMSE and the tests and scales of function cognitive measuring, GCI and UKU scale of adverse effects, comparing the base line to final scores.

**Conclusions:** Mild Cognitive Disorder is being examined, so there aren’t enough treatment for this. A long-term treatment (24 months) galantamine improves cognition and global function, behavioural symptoms and the general state well being of patients with Mild cognitive Disorder. With incidence of adverse effects not significant and a very good profile of safety, the final results of the study suggest that galantamine may be particularly appropriate in the Mild Cognitive Disorder.

**References**


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**S100**

**Mild cognitive disorder and depression: treatment with combination of galantamine and escitalopram**

J ulio Z er y, L isa L exk m etl

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**Background:** To evaluate the efficacy of galantamine-escitalopram combination in patients with Mild Cognitive Disorder and Depression. So there is a possible relation between the deficit of cerebral oxygenation and depression or relation between the serotonin system and cholinergic system in relation with disease comorbidty cognitive-depression.

**Objective:** To evaluate the therapeutic response in patients with comorbidity between Mild Cognitive Disorder and Depression in treatment with Galantamine, Escitalopram and the two drugs in combination.

**Materials and methods:** A group of 300 patients with symptoms of Mild Cognitive Disorder and Depression (DSM IV-R criteria) were separated in 3 groups of 100 patients. Each group received different treatment in an 8 months period: 

**Group 1:** Galantamine 16 mg/day. 

**Group 2:** Escitalopram 20 mg/day. 

**Group 3:** both drugs, same dose.

**Results:** The therapeutic response evaluated in Hamilton Scale for Depression(HAM-D), Montgomery and Asberg Depression Rating Scale (M.A.D.R.S.), Mini Mental State Examination (M.M.S.E) and Global Clinical Impression (G.C.I.) scores during 8 months. In the third group who received the two drugs associated, had much better response than the others and “brain enhancer”.

**Conclusions:** The group who received the combination of the nootropic agent Galantamine with antidepressant (SSRIs) Escitalopram had a relevant satisfactory therapeutic response (the best result), so there is a possible relation between the deficit in cholinergic systems and depression. Could be cerebral cholinergic systems deficit a generator of Depressive Disorder?

Attention and memory functions are closely tied to the cholinergic neurotransmitter system. The cholinergic system is one of the neurotransmitter systems implicated in the pathophysiology of mood disorders. Evidence suggests that during major depressive episodes, the cholinergic system is hypersensitive to acetylcholine.

**S101**

**Using daptomycin for the treatment of surgical site infections in a single neurosurgical unit - preliminary experience**

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**Background:** The increasing frequency of methicillin-resistant Staphylococcus aureus as a cause of surgical site infections, and decreased susceptibility to vancomycin, highlight the need for alternative therapies. Daptomycin is a novel lipopeptide antibiotic used in the treatment of certain infections caused by Gram-positive organisms. It is a naturally-occurring compound found in the soil saprotoph Streptomyces roseosporus. Its distinct mechanism of action means that it may be useful in treating infections caused by multi-resistant bacteria Daptomycin is approved for the treatment of skin and skin-structure infections (4 mg/kg), and Staphylococcus aureus bacteremia, including right-sided endocarditis (6 mg/kg).

**Aim:** To evaluate the safety and efficacy of daptomycin when administered for a variety of gram-positive infections in a single neurosurgical unit.

**Materials and methods:** During the last three years we use daptomycin (2006-2007-2008) in 64 cases. For the purpose of this study, the safety and efficacy of daptomycin were evaluated in patients who received doses of 4 mg/kg or higher. Prior antibiotic therapy was given to 21.8% of patients (14).

**Results:** The median final daptomycin dose was 5 mg/kg. The median duration of daptomycin therapy was 15 days. Daptomycin was well tolerated in patients with gram-positive infections. The most common infections were skin and skin-structure. The most common pathogens were S. aureus.

1. A large number of novel antibacterial agents have been or are being developed for the treatment of complicated skin and soft tissue infections - cSSIs -Daptomycin is one of them and it is available for clinical use. 2. Daptomycin was well tolerated in patients with gram-positive infections. 3. Further prospective and comparative studies of daptomycin are warranted.

**Conclusions:** We have always to remember that the most important parameters that appear to determine the clinical effectiveness of an antibiotic for cSSIs include the severity of the illness, patient comorbidities, whether the patient receives appropriate antimicrobial therapy at the onset of illness and if this should be a combination or single-agent approach to cover a broad range of likely causative organisms.

**Acknowledgements:** Special thanks to Mr Panagiotos Stratigakis.

**References**


S102
Evaluation of pharmacotherapy in inpatients with mania in bipolar disorder
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Background: The studies concerning prophylactic treatment in bipolar disorder suggest it should be introduced after the first manic episode [1]. Also early polytherapy is promoted, mainly mood stabilizers and antipsychotics. Antipsychotics are recommended in short-term use [2], but they are also used after improvement. Typical antipsychotics are effective in monotherapy in 70% of patients, like mood stabilizers [3]. The combination of antipsychotics and mood stabilizers is superior to monotherapy in rapid control of agitation.

Materials and methods: We determined which drugs are chosen at Institute of Psychiatry and Neurology for treating and preventing manic episodes. 61 inpatients diagnosed with manic episodes were evaluated. At discharge, 28% of patient were ordered to take one drug. For 72% patients polytherapy was ordered.

Results: There was no difference in the number of disease or manic phases between the group of patients with a remission phase lasting for at least a year and less than a year. Recurrence within one year after discharge was twice as frequent in patients with polytherapy than with monotherapy. During polytherapy the probability of avoiding recurrence was dropping quickly. No dependence was observed between the number of recurrences at patients with monotherapy or polytherapy and such parameters as the number of manic episodes, the number of depression episodes or education.

Conclusions: In most inpatients polytherapy was applied. For the maintenance phase of treatment the same drugs were recommended as used for active treatment. The way of treatment fully corresponds to bipolar disorder treatment standards.

References

S103
Psychometric properties of the Metacognitions Questionnaire-30 (MCQ-30) in a Greek sample
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Background: The term Metacognition refers to the psychological processes that are involved in the way a person controls, modifies, and appraises his own thoughts [1]. Maladaptive metacognitions have been related to the development and maintenance of psychological disorder [2,3]. The Metacognitions Questionnaire-30 (MCQ-30) is a multidimensional instrument for assessing metacognitions, composed of five factors: cognitive confidence, positive beliefs about worry, cognitive self-consciousness, negative beliefs about worry and need to control thoughts [4]. Psychometric properties of the MCQ-30 have been well documented [4] suggesting that it is a valid instrument that has already been used in clinical research with several psychiatric disorders.

Materials and methods: 223 undergraduate medical students from the Athens University Medical School (57.4% females), aged 18-33, and 30 resident psychiatrists were administered the Greek versions of the following self-report instruments:

The MCQ-30, a 30-item questionnaire that measures a person's metacognitive processes. The Trait Anxiety Inventory (STAI-T), a 20-item measure used to assess anxiety proneness. The Meta-worry Subscale of the "Anxious Thoughts Inventory", a 7-item scale that assesses a person's process worry dimension.

Results: Factor structure of the MCQ-30 5 factors were extracted using principal component analysis with equamax rotation, leading to a factor solution similar to the original non-clinical sample.

Reliability: The greek version of the MCQ-30 had good internal consistency, split-half reliability and test-retest reliability (as measured on a sample of 30 resident psychiatrists).

Convergent validity: The MCQ-30 presented good convergent validity with adequate correlation coefficients with both the STAI-T and the Meta-worry subscale.

Conclusions: The Greek version of the MCQ-30 is a valid self-report instrument with good psychometric properties. Factor analysis of the MCQ-30 indicates an acceptable construct validity of the questionnaire in a Greek sample.

References

S104
CSF Potential Biomarkers Aβ42 and Tau: associations of Apo E Genotype
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Background: The most promising strategy to detect AD in preclinical or presymptomatic stage need specific biomarkers. In this study we elucidated the relationship between Apo E genotype and CSF biomarkers Aβ42 and Total tau in Alzheimer’s Disease (AD) Patients, Non AD (NAD) patients, Neurological controls (NCs) and Healthy Controls (HCs).

Materials and methods: In this study we included 30 HC, 30 AD patients, 40 NAD, and 46 NC from Nehru Hospital, PGIMER, Chandigarh, India after obtaining informed consent from all the subjects. Apo E Genotyping was done according to the Wenham PR etal,1991. The levels of Aβ42 and total tau were determined by ELISA kits Innogenetics, Belgium.

Results: Our data of CSF Aβ42 and tau levels in conjunction with ε4 allele had shown specificity and sensitivity of 100% and 42.8% respectively for the detection of AD. Aβ42 and Apo E ε4 combination had shown specificity 80.8% and sensitivity 72.1 %. The ε4 allele distribution frequency was 40% and 2.5% in AD and NAD respectively, where as ε4/ε4 genotype and ε3/ε4 genotype distribution was 10% and 50 % respectively. Our data has shown that ε4 allele in combination with Aβ42 to have better sensitivity and specificity in the diagnosis of AD. AD patients with at least one ε4 allele had significantly lower CSF Aβ42 levels than those without ε4 allele (P < 0.001). There was a positive correlation of Aβ42 with low MMSE scores.

Conclusions: Observation from our study suggest that decreased Aβ42 and increased tau level in CSF along with Apo E ε4 allele as risk factors for AD. Our study also shows ε4 allele incidence to be a risk factor for AD.

Acknowledgements: ICMR, New Delhi, India for funding this study and Senior Residents of department of neurology, Colleagues Nidhi, Deep raj and Aditya.

References


S105 The Expressive and the Receptive One Word Picture Vocabulary test (EOWPVT & ROWPVT). (A combine pilot study and validation of the tests’ in normal Greek population - aged from 6 years till 6 years and 11 months)

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Background: The present pilot study was the adaption and validation of receptive and expressive language tests for Greek children aged from 6 years till 6 years and 11 months. The 3rd edition (2000) - used in this research - of ROWPVT and EOWPVT was originally created by Rick Brownell in 1985.

Materials and methods: The commercial versions of the tests were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of Greek, having proficiency in English, and two native speakers of Greek language, having proficiency in Greek, and changes were contacted, for the best representation of the Greek version.

In this research took part 100 participants (m:50, f:50) recruited from Greek schools at the region of Karditsa. The sample was independent from origin and socio - economic situations. Also an ENT, neurological and a psychological examination were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach = .777, & .768).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

S106 The Expressive and the Receptive One Word Picture Vocabulary test (EOWPVT & ROWPVT). (A combine pilot study and validation of the tests’ in normal Greek population - aged from 7 years till 7 years and 11 months)

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Background: The present pilot study was the adaption and validation of receptive and expressive language tests for Greek children aged from 7 years till 7 years and 11 months. The 3rd edition (2000) - used in this research - of ROWPVT and EOWPVT was originally created by Rick Brownell in 1985.

Materials and methods: The commercial versions of the tests were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of Greek, having proficiency in Greek, and changes were contacted, for the best representation of the Greek version.

In this research took part 100 participants (m:50, f:50) recruited from Greek schools at the region of Ioannina. The sample was independent from origin and socio - economic situations. Also an ENT, neurological and a psychological examination were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach = .800, & .805).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

S107 The Expressive and the Receptive One Word Picture Vocabulary test (EOWPVT & ROWPVT). (A combine pilot study and validation of the tests’ in normal Greek population - aged from 8 years till 8 years and 11 months)

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Background: The present pilot study was the adaption and validation of receptive and expressive language tests for Greek children aged from 8 years till 8 years and 11 months. The 3rd edition (2000) - used in this research - of ROWPVT and EOWPVT was originally created by Rick Brownell in 1985.

Materials and methods: The commercial versions of the tests were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of Greek, having proficiency in Greek, and changes were contacted, for the best representation of the Greek version.

In this research took part 105 participants (m:52, f:53) recruited from Greek Schools at the region of Thessaloniki. The sample was independent from origin and socio - economic situations. Also an ENT, neurological and a psychological examination were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach = .800, & .805).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.
English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 108 participants (m:55, f:53) recruited from Greek Schools at the region of Drama. The sample was independent from origin and socio - economic situations. Also an ENT, neurological and a psychological examination were also requested, so no medical problems could probably influence the test results.

**Results:** Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach = .748, & .669).

**Conclusions:** The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

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**S109**

The Expressive and the Receptive One Word Picture Vocabulary test (EOWPVT & ROWPVT). (A combine pilot study and validation of the tests' in normal Greek population - aged from 10 years till 10 years and 11 months) Dionnios Tafiadis1,2,3, Xyanaithi Girekou1, Maria Tafiadi1

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**Background:** The present pilot study was the adaption and validation of receptive and expressive language tests for Greek children aged from 10 years till 11 years and 11 months. The 3rd edition (2000) - used in this research - of ROWPVT and EOWPVT was originally created by Rick Brownell in 1985.

**Materials and methods:** The commercial versions of the tests were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m:50, f:50) recruited from Greek Schools at the region of Ioannina. The sample was independent from origin and socio - economic situations. Also an ENT, neurological and a psychological examination were also requested, so no medical problems could probably influence the test results.

**Results:** Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach = .638, & .599).

**Conclusions:** The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

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**S110**

The Expressive and the Receptive One Word Picture Vocabulary test (EOWPVT & ROWPVT). (A combine pilot study and validation of the tests' in normal Greek population - aged from 11 years till 11 years and 11 months) Dionnios Tafiadis1,2,3, Iosifina Paroutiadou1, Konstantina Papageorgiou1, Maria Tafiadi1

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**Background:** The present pilot study was the adaption and validation of receptive and expressive language tests' for Greek children aged from 11 years till 11 years and 11 months. The 3rd edition (2000) - used in this research - of ROWPVT and EOWPVT was originally created by Rick Brownell in 1985.

**Materials and methods:** The commercial versions of the tests were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m:50, f:50) recruited from Greek Schools at the region of Ioannina. The sample was independent from origin and socio - economic situations. Also an ENT, neurological and a psychological examination were also requested, so no medical problems could probably influence the test results.

**Results:** Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach = .816, & .800).

**Conclusions:** The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.
S112
The Expressive and the Receptive One Word Picture Vocabulary test (EOWPV & ROWPV). (A combine pilot study and validation of the tests’ in normal Greek population - aged from 13 years till 13 years and 11 months) Dionisos Tafiadi1,2,*, Anastasios Mokas1, Konstantinos Chorevas1, Maria Tafiadi2
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Background: The present pilot study was the adaption and validation of receptive and expressive language tests’ for Greek children aged from 13 years till 13 years and 11 months. The 3rd edition (2000) - used in this research - of ROWPV and EOWPV was originally created by Rick Brownell in 1985.

Materials and methods: The commercial versions of the tests were adapted in Greek language by a linguist, three speech language therapists, and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m:50, f:50) recruited from Greek Schools at the region of Ioannina and Igoumenitsa. The sample was independent from origin and socio-economic situations. Also an ENT, neurological and a psychological examination were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach = .801, & .829).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

S113
The Expressive and the Receptive One Word Picture Vocabulary test (EOWPV & ROWPV). (A combine pilot study and validation of the tests’ in normal Greek population - aged from 14 years till 14 years and 11 months) Dionisos Tafiadi1,2,*, Anastasios Mokas1, Konstantinos Chorevas1, Maria Tafiadi2
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Annals of General Psychiatry 2010, 9(Suppl 1):S113

Background: The present pilot study was the adaption and validation of receptive and expressive language tests’ for Greek children aged from 14 years till 14 years and 11 months. The 3rd edition (2000) - used in this research - of ROWPV and EOWPV was originally created by Rick Brownell in 1985.

Materials and methods: The commercial versions of the tests were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m:50, f:50) recruited from Greek Schools at the region of Ioannina and Agrinio. The sample was independent from origin and socio-economic situations. Also an ENT, neurological and a psychological examination were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach = .659, & .663).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

S114
The Expressive and the Receptive One Word Picture Vocabulary test (EOWPV & ROWPV). (A combine pilot study and validation of the tests’ in normal Greek population - aged from 15 years till 15 years and 11 months) Dionisos Tafiadi1,2,*, Euaggelia Bogindrouka1, Kaliopi Kentioglou1, Maria Tafiadi3
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Background: The present pilot study was the adaption and validation of receptive and expressive language tests’ for Greek children aged from 15 years till 15 years and 11 months. The 3rd edition (2000) - used in this research - of ROWPV and EOWPV was originally created by Rick Brownell in 1985.

Materials and methods: The commercial versions of the tests were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m:50, f:50) recruited from Greek Schools at the region of Ioannina and Agrinio. The sample was independent from origin and socio-economic situations. Also an ENT, neurological and a psychological examination were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach = .812, & .848).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.
Materials and methods: The commercial versions of the tests were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m=50, f=50) recruited from Greek Schools at the region of Ioannina and Agrinio. The sample was independent from origin and socio-economic situations. Also an ENT, neurological and a psychological examination were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach = .693, .716).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

S116
The Expressive and the Receptive One Word Picture Vocabulary test (EOWPVT & ROWPVT). (A combine pilot study and validation of the tests' in normal Greek population - aged from 17 years till 17 years and 11 months) Dionisos Tafiadis1,2,3, Emmanouil Pantazis1, Maria Tafiadi3
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Background: The present pilot study was the adaption and validation of receptive and expressive language tests for Greek children aged from 17 years till 17 years and 11 months. The 3rd edition (2000) - used in this research - of ROWPVT and EOWPVT was originally created by Rick Brownell in 1985.

Materials and methods: The commercial versions of the tests were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m=50, f=50) recruited from Greek Schools at the region of Ioannina and Agrinio. The sample was independent from origin and socio-economic situations. Also an ENT, neurological and a psychological examination were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach = .757, .798).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

S118
Therapy of addition for Alzheimer’s Disease: combination with galantamine and memantine Julio Zara1, Luisa Schmidt2
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Background: The efficacy, safety, and tolerability of nootropical cholinergic agent: GALANTAMINE (with a dual mechanism of action on the cholinergic a system) and moderate affinity NMDA-receptor antagonist: MEMAMTINE, were assessed taking into account the profile of patients with neurocognitive disorder: Alzheimer’s disease, from the clinical aspects and the different classifications.

Materials and methods: The experience included 380 patients who were enrolled in a prospective, observational, multicenter, and open-label study to receive 16 mg/day of galantamine and 30 mg/day of memantine for 12 months of treatment of addition.

Results: The therapeutic response was measured using the Mini Mental State Examination (MMSE), Clinical Dementia Rating (CDR), Alzheimer’s Disease Assessment Scale (ADAS-COG), Functional Activities Questionnaire (FAQ) the Clinical Global Impression Scale (CGI) and the UKU scale of adverse effects taking into account the efficacy, safety and adverse events of the treatment.

Conclusions: The final results of the study showed that galantamine with addition memantine improves cognition, behavioural symptoms, and the general well-being of patients with cognitive impairment: Alzheimer’s disease. The incidence of adverse events was not significant and a very good profile of tolerability and safety was observed.

References

S119
The Expressive and the Receptive One Word Picture Vocabulary test (EOWPVT & ROWPVT). (A combine pilot study in High School aged children & data for expressive and receptive language for this population) Dionisos Tafiadis1,2, Evaggelia Bogidoukou1, Kalopi Kentoglou1, Emmanouil Pantazis1, Maria Zok, Maria Tafiadi1, Aggelos Papadopoulos1, Pagona(Nonika) Koutsiogianni3
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Background: The present pilot study was the adaption of receptive and expressive language tests (ROWPVT and EOWPVT) for Greek children aged from 14 years till 18 years and 11 months, and to locate any differences between receptive and expressive language.

Materials and methods: The commercial versions of the tests were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 400 participants (m:200, f:200) recruited from Greek High Schools. The sample was independent from origin and socio-economic situations. Children with medical problems (ENT, neurological or psychiatric) excluded, because it will influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent to other results reported. No statistically significant differences were found according to sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach = .801), & .819.

Conclusions: The test appears to be sensitive for high school aged Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability, high content validity. The participants demonstrated clear patterns of responses and there were no differences between expressive and receptive language.

S120 The Apraxia battery for Adults - 2 (ABA - 2). (A second pilot study and validation of the test in aphasic Greek population) Dionisos Tafiadis1,2,*, Stamatina Larentzaki1, Despoina Magioglou1, Ioannis Mpourakis1, Maria Neofotistou1, Aggeliki Pagoni1, Elisavet Xatierfemidou1, Maria Tafiad11
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Background: The present pilot study was the adaption and validation of word finding for Greek children aged from 4 years till 4 years and 11 months. The Test of Word Finding, (TWF - 2), 2nd edition (2000) - used in this research - was originally created by Diane German in 1985.

Materials and methods: The commercial version of the test were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m:50, f:50) recruited from Greek pre - schools settings at the region of Agrinio. The sample was independent from origin and socio-economic situations. Medical examinations’ were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach ≥.80).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

S121 The Test of Word Finding (TWF - 2). (A pilot study and validation of the test in normal Greek population aged from 4 years till 4 years and 11 months) Dionisos Tafiadis1,2,*, Stamatina Larentzaki1,2,*, Despoina Magioglou1, Ioannis Mpourakis1, Maria Neofotistou1, Aggeliki Pagoni1, Maria Tafiad11
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Background: The present pilot study was the adaption and validation of word finding for Greek children aged from 4 years till 4 years and 11 months. The Test of Word Finding, (TWF - 2), 2nd edition (2000) - used in this research - was originally created by Diane German in 1985.

Materials and methods: The commercial version of the test were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m:50, f:50) recruited from Greek pre - schools settings at the region of Agrinio. The sample was independent from origin and socio-economic situations. Medical examinations’ were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach ≥.80).
Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

S123

The relationship between visual memory and the P300 in families with schizophrenia
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Background: Patients with schizophrenia and their unaffected relatives exhibit significant P300 amplitude and latency abnormalities in conjunction with neurocognitive deficits. Both the deficits in the P300 and neurocognition suggest that these indexes may be potential endophenotypes in the disorder. Few studies have examined the relationship between the P300 and neuropsychological measurements of sustained attention, visual memory and current intellectual ability in schizophrenia and these studies provide inconsistent results. The aim of the present study is (a) to examine which cognitive impairments the P300 reflects in schizophrenia and (b) to investigate the relationship between neurocognition and the P300 in families with schizophrenia in order to examine if these may be potential endophenotypes of the disorder.

Materials and methods: 95 patients with schizophrenia (35 females, 60 males), 149 of their non-psychotic unaffected first-degree relatives (91 females, 57 males) and 69 unrelated healthy controls with no personal family history of psychoses (39 females, 30 males) were assessed both in a P300 oddball paradigm and neuropsychological measurements such as the WAIS-R (Wechsler, 1981), response tendency of the Conner’s Continuous Performance Test (Conners, 1995), immediate and delayed visual recall of The Wechsler Memory Scale-Russell’s version (Russell, 1975). STATA 9.0 (STATA Corporation, College Station, TX) was used for the statistical analysis of data.

Results: Significant P300 amplitude reductions and prolonged latencies were found in patients and their unaffected relatives independent of current general intellectual ability, education and age. There was a significant effect of sustained attention (response tendency), on the P300 amplitude reductions of patients and their unaffected relatives. Immediate visual recall had a significant effect on the P300 amplitude reduction of patients and their unaffected relatives, while there was no effect of delayed visual recall. There was no significant effect of immediate and delayed visual recall on the P300 prolonged latencies of patients and their unaffected relatives. Sustained attention did not have a significant effect on the P300 latency, but after controlling for its effect the differences between the groups disappeared.

Conclusions: The findings of the present study suggest that the P300 amplitude reduction that patients and their unaffected relatives exhibited reflected impairments in effortless attention and in the use of short-memory processes (e.g. encoding) that involve the visual modality. The findings also suggest a dissociation between the P300 and delayed visual recall in patients and their unaffected relatives. Although it is less clear from the present findings, the prolonged P300 latency does not seem to reflect impairments in sustained attention and visual memory processes in either patients with schizophrenia or their unaffected relatives. The P300 amplitude reduction seems to be a potential endophenotype of schizophrenia.

References

S124

Synthesis and study the analgesic and anti-inflammatory effects of rigid benzofuran 3, 4 dihydroxy chalcon (DHC) in mice
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Background: According to bibliography on the structure activity relationship, it seems that the rigid Benzofuran dihydroxy chalcon (DHC) may be more effective on pain and inflammation. In this study the Rigid benzofuran DHC were synthesized and the analgesic and anti-inflammatory effect was evaluated.

Materials and methods: In this study the rigid benzofuran DHC were synthesized and the analgesic and anti-inflammatory effect of different doses: 12.5, 25 and 50 mg/kg, was evaluated by formalin hot plate and caregeenan tests, in group of 7 mice.

Results: The results showed that 3.4-DHC with dose of 25mg/kg induced significant antinociception and anti-inflammation compared with control group. In addition the effect of DHC was higher in the chronic phase of formalin test, therefore it seems that DHC has better anti-inflammatory effect rather than analgesic effect. The dose of 25 mg/kg of DHC induces significant analgesia in hot plate test and anti-inflammatory effect in caregeenan test too. The doses of 25 and 50 mg/kg, induced lethargy in mice.

Conclusions: The result showed that with modification of structure of the DHC, this derivative has potential for more studies as a lead compound.

References

S125

Relationship of parental age with set shifting and reversal learning in schizophrenia
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Background: Advanced parental age at birth has been associated with the risk of schizophrenia and has been linked to cognitive deficits in children. However, the relationship of parental age with cognition and with attentional flexibility in schizophrenia remains unknown.

Materials and methods: 27 patients with schizophrenia, were tested on the intra-dimensional/extra-dimensional set-shifting task (IEDS) of the Cambridge NeuroPsychological Test Automated Battery (CANTAB) in an acute psychiatric ward. The paternal (PAB) and maternal age at birth (MAB) were also registered. Statistical correlation analyses and the Mann-Whitney test were performed using the SPSS.

Results: PAB positively correlated with the intra-dimensional shifting errors in the IEDS (rho = 0.7, p = 0.005). MAB positively correlated with both intra- and extra-dimensional reversal errors (rho = 0.572, p = 0.026 and rho = 0.9, p = 0.037, respectively). When we divided our subjects into two groups according to their PAB (≥ and < 30 years), no differences were found in any cognitive measure. However, the group with a MAB ≥ 30 years, showed increased intra-dimensional reversal errors compared with the group with a MAB < 30 years (p = 0.03 and 0.029 respectively).
Conclusions: Increasing parental PAB showed an inverse relationship with the intra-dimensional shifting ability, but did not affect rule reversal performance. MAB was associated with errors in both intra- and extra-dimensional reversal in schizophrenia.

References

Rates of respiratory function, anxiety level and frustration reactivity were measured.

Results: The significant decreases of anxiety level, combined with an increase in frustration tolerance, were found. Moreover, these processes were accompanied by an increase in CO2 at the end of exhalation (FEtCO2) and the structure changes of breathing pattern. An internal restructuring of the respiratory cycle was observed: expiration time increased while the respiratory rate remained unchanged.

Conclusions: Whereas hyperventilation syndrome diagnosis in children should be focused mainly on FEtCO2 and respiration rate indices, to identify other forms of functional respiratory disorders it is necessary to control the respiratory cycle data, among them the exhalation duration particularly.

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S126

The effect of psychopathology on set shifting and reversal learning in schizophrenia

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Background: Recent studies suggest that negative and disorganized symptoms of schizophrenia are modestly associated with cognitive deficits, whereas positive and depressive symptoms are not.

Materials and methods: 27 patients with schizophrenia were tested on an intra-dimensional EXTRA-dimensi onal set-shifting (IIDS) task of the Cambridge Neuropsychological Test Automated Battery (CANTAB) in an acute psychiatric ward. Their psychopathological state was assessed with PANSS and the Calgary Depression Scale. Correlation analysis was used to examine the association of psychopathology with set shifting and reversal learning performance.

Results: We found significant positive correlations of PANSS total (rho = 0.53, p = 0.016) and general (rho = 0.590, p = 0.006) scores with the intra-dimensional reversal errors in IIDS. No significant correlations of IEDS performance variables with the PANSS positive or negative symptoms scores were found. PANSS disorganization scores showed positive correlations with intra-dimensional reversal errors (rho = 0.639, p = 0.002), but a small negative correlation with the number of completed IEDS stages (rho = -0.392, p = 0.043). No association was detected between depressive symptoms and IEDS task performance.

Conclusions: We found modest associations between symptomatology and the intra-dimensional reversal ability in schizophrenia. These associations are mainly driven by disorganization symptoms. Positive, negative and depressive symptoms are not associated with IEDS performance.

References
1. Dominguez Mde G, Viechtbauer W, Simons CJ, van Os J, Krabbendam L: Evaluating the effect of Tetrahydrocannabinol (Δ9-THC) extracted from Cannabis sativa plant on spatial memory consolidation in rats. Saeedeh Ebrhimpour1, Montez Kafae2, Maryam Tehranipour1, Morteza Behnamasouli1
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Background: As the point of psychology, memories form changes in the conducting message in the neural webs. These changes cause the formation of long-term potentiation. Δ9-THC is a psychotropic component of Cannabis sativa plant. Studies show this matter can bind Cannabinoid receptor in CA1 area of Hippocamp. Thus the aim of this study is to evaluate the effect of air extraction Cannabis sativa seed on spatial memory consolidation in rats.

Materials and methods: A number of 40 male wistar rats (3-4 month, 320-260 g) were completely divided into 4 experimental groups and control group. Cannabis sativa seed was extracted with Soxhlet apparatus. To test spatial memory, Morris water maze (7 days, 4 trail) was used. Experimental groups with 50 mg.kg-1 100 mg.kg-1, 150 mg.kg-1, 210 mg.kg-1 were injected in the peritoneal (IP) and after one hour of injection spatial memory was scaled.

Results: The result show that experimental groups (50 mg.kg-1, 100 mg.kg-1, 150 mg.kg-1 doses), for learning time have significant level in the comparison of control group (p < 0.05), but experimental group with 210 mg.kg-1 dose has not significant level in the comparison of control group (p < 0.05).

Conclusions: We demonstrate tetrahydrocannabinol can change brain function as learning and memory processes and probably was done with Depolarization-Induced Suppression of excitatory (DSE) mechanism in the CA1 area of Hippocamp that with neurotransmitter regulation cause europsychiatry.

Acknowledgements: The authors are grateful to Islamic Azad University of Mashhad, Iran for support.

References

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S127

Psychological status and breath at children with psychosomatic pathology

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Background: Breath and emotions are closely connected and that is reflected in various symptomatology in children with psychosomatic pathology. The aim of study was to estimate the psychosomatic status and ventilation function of breath using of respiratory biofeedback in children with various psychosomatic diseases.

Materials and methods: To examine the relationship between respiration and psychological status in children with psychosomatic disorders, 20 children aged 8-12 were studied during the integrated treatment using respiratory BF by capnography at day-care hospital.

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S129

Effects of exposure to extremely low-frequency magnetic field of 2μT intensity on spatial memory and learning in mice

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Background: Extremely low-frequency magnetic fields (ELFMF) have been reported to produce a variety of biological effects, interfere with the
activity of the brain and may cause behavioral and cognitive disturbances. Some efforts have been made to investigate the incidence of ELF MF on human health and animal physiology and behavior. In the present study, we examined the effects of chronic exposure (1 and 2 weeks) to an extremely low-frequency magnetic field (ELMF) of 2 μT intensity on memory in rats using a Morris water maze.

Materials and methods: We examined the changes in spatial learning and memory by the Morris water maze test after 1 week of daily exposure of rats to a 10-Hz and 30-Hz magnetic field of 2 μT for either 1 or 4 h.

Results: We found that chronic exposure to ELF MF reduced the latency to find the hidden platform and improved long-term memory of former location of platform without affecting motor activity.

Conclusions: These findings for the first time indicate that chronic exposure to ELF MF exerts a positive effect on the acquisition and maintenance of spatial memory.

Acknowledgments: The authors are grateful to Islamic Azad University of Mashhad, Iran for support.

References

S130 Medical consultations in psychiatric inpatients: a descriptive study

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Background: According to previous studies, medical illness is common in psychiatric patients but they are frequently treated without careful attention to medical problems [1]. Psychiatric symptoms can be manifestations of medical illness. Medical illness and psychiatric disorder can coexist and can affect severity, course and prognosis of each other [2].

Materials and methods: This is a descriptive study (existing data). We studied the documentations of 2500 admitted patients in Imam hossein hospital and those with medical consultations included in this study.

Results: Total of consultations was 706 that for 490 patients. 61% of consultations were for women and 39% for men. 54% had diagnosis of bipolar disorder 14% depression, 7% schizophrenia, 8% schizoaffective and 17% other diagnosis. Emergent consultations were 29% and non emergent 71%. The most consultations were related to internal, neurology cardiologic wards (emergent and non emergent). In subspecialty services endocrinology consultations were the most common. The most common medical comorbidities were diabetes mellitus and cardiovascular diseases. CNS problems was the most frequent cause of psychiatric disorder due to general medical condition (in 4%) and the most psychiatric manifestation of them was mood disturbances (depression and bipolar). 28% of consultations were related to previously recognized medical disease (diabetes, thyroid disease and epilepsy) to an extremely low-frequency magnetic field on control and morphine treated CF-1 mice.

Conclusions: According to findings of this study medical problems among psychiatric inpatients are common. So psychiatrists should not ignore this probability to avoid the potential harm of these problems in any psychiatric settings. Availability of medical services for psychiatric inpatients (such as medical consultants or beings in a general hospital) seems to be considered as one of essentials in this line [3].

S131 Galantamine improves cognition, behavioral symptoms and functioning: a 6-month non-interventional study

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Background: Acetylcholinesterase inhibitors (AChEIs) are the treatment of choice for mild to moderate Alzheimer’s disease (AD). Switches between AChEIs are usually performed when the current therapy is not effective or poorly tolerated.

Aim: To evaluate the effect of Galantamine treatment in cognition, behavioral symptoms and daily functioning of patients with mild-to-moderate AD.

Methods: 6-month, non-interventional, prospective study. Treatment-naive patients or those who had failed on a previous AChEI therapy were enrolled. Naïve patients started treatment on 8 mg daily. Patients switched from other AChEIs started at galantamine therapeutic levels -16 mg- or 24 mg if switched from max dose of rivastigmine. Efficacy was assessed using Mini Mental State Examination (MMSE), Neuropsychiatric Inventory (NPI), Disability Assessment for Dementia (DAD), and Cornell Scale. Caregivers also rated patient’s condition using Clinical Global Impression (CGI) scale. Adverse events were closely monitored.

Results: 333 patients were enrolled (58.6% female). The mean age was 73.5 (SD 6.7) and mean time since diagnosis was 64.2 months (SD 59.1). At the end of the study, the mean galantamine dose was 22.44 mg/day (SD 3.2). 95.2% of patients (317/333) had received another AChEI and inadequate response was the most frequent reason for switching (70.7%).

Efficacy results on all scales had a statistically significant improvement from baseline to month 6. MMSE was increased: 18.7 (SD 4.2) to 19.9 (SD 4.6), p < 0.001; and DAD also increased:68.9 (21.0) to 73.7 (16.2), p = 0.004. NPI, Cornell & CGI were decreased: NPI 12.6 (15.5) to 9.9 (13.2), p < 0.001; Cornell 7.0 (7.7) to 4.6 (5.5), p = 0.003; CGI-Caregivers 3.8 (1.1) to 3.6 (1.2), p < 0.001.

99% of patients had at least one adverse event. Most were mild involving nausea (23.3%), vomiting (18.3%) and diarrhea (6.7%). 8 SAEs were recorded.

Conclusions: Discontinuation of a previous AChEI with subsequent treatment with galantamine at a therapeutic dose level may improve all clinical aspects of AD. The safety profile recorded in everyday clinical practice was similar to that reported in double-blind, controlled trials of galantamine.
A case of pure word mutism: don’t speak but can whisper

Bipolar disorder is a life-long condition associated with orbit ete vert psychological experiences used to express emotions whereas nowadays a shift from bodily experiences to emotional - or better to say psychological-experiences has been proposed. “Unable to speak but can whisper”, “Cannot hold arm but can hold it in place”, “Glove and stocking pain or numbness”, all these represent the patient’s idea of anatomy and physiology, and were seen more often in the past. On the other hand hysterical behavior has for long been described in cases of endogenous psychoses.

Materials and methods: Case Report: A 48-year-old woman, married, mother of three children, was admitted to our hospital for aphony for the last year, severe anxiety and insomnia for the past week. Her first symptoms appeared three years ago when she had 4 episodes of fugue.

Results: One year ago, with no obvious precipitating factor, she fainted in her garden and couldn’t talk after recovering of that. At hospital, high blood pressure and expressive aphasia, were diagnosed at first but after full neurological examination and a cranial computed tomography, revealing no infarct, the patient was discharged as having ‘conversion disorder’ and mirtazapine and diazepam were prescribed. For the next weeks she didn’t speak but communicated through writing. During her hospitalization in our ward of a psychiatric hospital it became obvious, through her writings, that the patient was of psychotic (paranoid type), having persecutory delusions and also auditory hallucinations especially in the evening preventing her from sleeping. The diagnosis of psychosis was confirmed by an MMPI, EEG, CT scan and MRI were negative. She was treated with aripiprazole 15 mg. At first she started to whisper but was incomprehensible most of the time and her sleep improved. Three weeks later we could understand her whispering and she was discharged. Nine months later she is functional, has no hallucinations or organized persecutory ideas. She still has some suspiciousness and though communicating very well is most of the time whispering!

Conclusions: Symptoms do not fully determine diagnosis or better to say the same symptoms can be found in many diagnostic categories. The severity and insistence of her ‘typical’ hysterical symptoms should have guided clinicians to the diagnosis of psychosis.

References

S133
Treatment of bipolar mania with paliperidone extended-release

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3Background: Bipolar disorder is a life-long condition associated with frequent relapses of symptoms and clinicians often use combinations of psychotropic agents to treat their patients. Second generation antipsychotics are a frequent choice in antimanic pharmacologic treatment. The evidence suggests that for acute mania a combination of lithium or valproate and an atypical antipsychotic is the most effective approach. Paliperidone extended-release (ER) is approved for treatment of acute schizophrenia and for maintenance treatment of schizophrenia. It has -probably as a result of its pharmacokinetic profile- shown robust efficacy, and a favorable tolerability in multiple trials for the treatment of schizophrenia. Our goal was to assess its efficacy and tolerability as acute and maintenance of effect therapy in patients with bipolar I disorder experiencing manic or mixed episodes while on a mood stabilizer.

Materials and methods: Six hospitalized patients (2 men and 4 women) with average age 35.6 years and average duration of illness 7.2 years, with acute bipolar I mania (2 of them with a mixed episode) were put on paliperidone (3 patients on 6 mg and 3 patients on 9 mg). They were all receiving a mood stabilizer (3 were on valproate, 2 on lithium, and one on topiramate) although compliance was partial in at least 4 of the cases.

References

S132
Association of weight gain and metabolic syndrome in patient taking Clozapine: a 8-year cohort study

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Background: Metabolic syndrome is an important side effect associated with clozapine. It has been hypothesized that weight gain contributes to the development of metabolic syndrome, but a direct diabetogenic effect has also been suggested. We conducted an 8-year cohort study to determine the association between weight gain and metabolic parameters among schizophrenic patients on clozapine.

Materials and methods: The subjects were hospitalized schizophrenic patients who began to receive clozapine and subsequently had monthly body weight monitoring during the entire study period. Chart reviews were conducted to obtain gender, age at initiation of clozapine treatment, baseline Body Mass Index (BMI), BMI changes after the initiation of clozapine treatment, treatment duration with clozapine and concomitant psychotropic medications. Anthropometric and biochemical measurements were performed to determine the presence of metabolic syndrome.

Results: Patients were maintained on clozapine for an average treatment duration of 56.0 ± 27.8 (range 5 to 96) months. The prevalence of metabolic syndrome was 28.7%. The cohort regression models showed that baseline BMI (p < 0.0001) and BMI change after clozapine treatment (p < 0.0001) were significant factors for metabolic syndrome as were most metabolic parameters except hyperglycemia and diabetes mellitus, which were related to treatment duration (p < 0.05).

Conclusions: For patients treated with clozapine, metabolic syndrome and most metabolic parameters were related to weight gain; however, glucose dysregulation was associated with treatment duration independent of weight gain. The results confirm that monitoring body weight is important, but periodic monitoring of blood sugar may also be required for clozapine patients who do not have significant weight gain.

References

S133
Fugue and aphony as first and foremost presentations of a case of psychosis

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Background: Hysthria has experienced many changes in diagnostic classification and clinical manifestations. It has become infrequent due to cultural but also diagnostic changes. A change in which people bodily experiences used to express emotions whereas nowadays a shift from bodily experiences to emotional -or better to say psychological-experiences has been proposed. “Unable to speak but can whisper”, “Cannot hold arm but can hold it in place”, “Glove and stocking pain or numbness”, all these represent the patient’s idea of anatomy and physiology, and were seen more often in the past. On the other hand hysterical behavior has for long been described in cases of endogenous psychoses.

Materials and methods: Case Report: A 48-year-old woman, married, mother of three children, was admitted to our hospital for aphony for the last year, severe anxiety and insomnia for the past week. Her first symptoms appeared three years ago when she had 4 episodes of fugue.

Results: One year ago, with no obvious precipitating factor, she fainted in her garden and couldn’t talk after recovering of that. At hospital, high blood pressure and expressive aphasia, were diagnosed at first but after full neurological examination and a cranial computed tomography, revealing no infarct, the patient was discharged as having ‘conversion disorder’ and mirtazapine and diazepam were prescribed. For the next weeks she didn’t speak but communicated through writing. During her hospitalization in our ward of a psychiatric hospital it became obvious, through her writings, that the patient was of psychotic (paranoid type), having persecutory delusions and also auditory hallucinations especially in the evening preventing her from sleeping. The diagnosis of psychosis was confirmed by an MMPI, EEG, CT scan and MRI were negative. She was treated with aripiprazole 15 mg. At first she started to whisper but was incomprehensible most of the time and her sleep improved. Three weeks later we could understand her ‘whispering’ and she was discharged. Nine months later she is functional, has no hallucinations or organized persecutory ideas. She still has some suspiciousness and though communicating very well is most of the time whispering!

Conclusions: Symptoms do not fully determine diagnosis or better to say the same symptoms can be found in many diagnostic categories. The severity and insistence of her ‘typical’ hysterical symptoms should have guided clinicians to the diagnosis of psychosis.

References
The primary outcome measure was the mean change in the Young Mania Rating Scale (at baseline average: 40.3) and secondary measures included the 21-item Hamilton Rating Scale for Depression (HAM-D-21) and Clinical Global Impressions-Bipolar Version (CGI-BP), at baseline average: 5,4] at the 4 week (average YMRS: 14 and CGI-BP: 3), 8 (average YMRS: 11 and CGI-BP: 2.4), and 16(average YMRS: 11 and CGI-BP: 2.2).

Results: Paliperidone ER provided improvement of acute mania within 4 days, continuing over 4 weeks and sustained over 16 weeks in 5 of our 6 patients. It was discontinued in one at day 8 due to worsening of her symptoms. Paliperidone was generally well tolerated and helped patients achieve and maintain remission without occurrence of depressive symptoms. In 2 of the patients on 9 mg, paliperidone was lowered to 6 mg after 8 weeks without recurrence of symptoms. No patient developed major depression.

Conclusions: Well tolerated and effective therapies for bipolar mania are required. It is well known that patients with bipolar disorder appear more sensitive to antipsychotics. Paliperidone provided in our small sample significant improvement of acute mania and maintained its effect for 4 months. Paliperidone ER may be a safe and effective treatment option for acute mania and provide additional benefit over monotherapy for the management of the manic phase but also for control of mood symptoms in the long run, particularly in preventing manic relapses. It should be noticed that our patients suffered moderate to severe manic episodes, 4 of them with psychotic features (Patients 1, 2, 4, 6), and had to be hospitalized for them. This could partially explain why the addition of an antipsychotic improved rapidly their symptomatology. Studies with exclusively nonpsychotic acute or mixed episodes should be conducted.

References

S135
The use of amisulpride in schizophrenic patients with resistant symptomatology
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Background: The purpose of this study was to evaluate the use of the pharmaceutical drug Amisulpride (Solian) in schizophrenic patients with resistant semiology.

Materials and methods: The material of this study was 21 patients (17 men and 4 women) who were diagnosed with schizophrenic disorder paranoid type based on DSM-IV, and were recorded with durable symptomatology (delusions, paranoid ideas etc.) even though the continuous issuing of Amisulpride in normal doses (800-1200 mg/daily). In these patients was given Amisulpride in larger doses than the proposed (1600-2000 mg/daily). The evaluation was done with the PANSS scale.

Results: After a 30 day time interval and while the continuous issuing of Amisulpride in larger doses was observed considerably reprores of the resistant symptoms, fact that recorded at the grade alleviation at PANSS scale.

Conclusions: Is concluding that the continuous issuing of Amisulpride in larger doses than the normal ones help considerably in obliterating of the durable symptoms of schizophrenia.

S136
Evaluation the antinoceptive and anti-inflammatory effect, of new rigid, propoxy benzopyran-4-one derivative by Hot-plate, Formaline and Plethysmography.
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Background: There are many reports indicating the analgesic and anti-inflammatory effects of 3,4-di-hydroxy chalcone. In this study antinoceptive and anti-inflammaror effects of rigid derivative 3-[3,4-di-hydroxybenzylidine]-7-propoxy benzpyran-4-one, were evaluated by Formalin, Hotplate and Carageenan tests. Effective dose compared with Morphine and Ibuoprofen.

Results: The result showed that, propoxy chalcone with dose of 75 mg/kg induced significant anti nociception and anti inflammation in Formalin and Carageenan tests. The results showed that the dose of 75 mg/kg of 3,4-DHC induces significant analgesia in 45 and 60 minutes in hot plate test. The analgesic effect of the most effective dose of 3,4-Dihydroxy chalcone 75 mg/kg was lower than morphine (2.5 mg/kg) in all time in Formalin and Hotplate tests. The analgesic effect of DHC was higher than Ibuoprofen (200 mg/kg) in 0-5 minute in Formalin test and in 45 and 60 minutes in Hot plate test, but in chronic phase of Formalin test was nearly equal to Ibuoprofen. In Carageenan test, the anti inflammatory effect of 3,4-DHC was higher than Ibuoprofen (200 mg/kg) and morphine (2.5 mg/kg) in the first and third hours. Therefore it seems that 3,4-DHC has better anti-inflammatory effect rather than analgesic effect. The doses of 75 and 100 mg/kg, induced lethargy in mice.

Conclusions: The results showed that the modification of this structure of DHC, may lead to more effective derivative with significant analgesic effect and it could be used for more studies to access a clinical use of 3,4-DHC as a drug.

S137
Social activity and participation as determinants of anxiety and depression among elderly in primary care
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Background: Aim of this study was to investigate anxiety disorders and depression among members of one Open Care Centre for the Elderly (KAPI) in Crete-Greece, in correlation with their activity and participation levels.

Materials and methods: A cross-sectional study was designed and 132 aged (≥65) participated. All participants were members of the KAPI from a rural district in Crete, Greece. Data were collected with face-to-face interviews. Social activity and levels of participation in KAPI were examined. The Short Anxiety Screening Test (SAST) and the Geriatric Depression Scale (GDS-15) was used to assess anxiety disorders and depression respectively. Univariate and multivariate regression models used to determine the factors which correlate with these disorders.

Results: 132 aged (mean age 75.7 years) participated. 18.2% had minor depression (GDS ≥ 7) and 8.3% moderate to severe depression (GDS ≥ 11), while 17.4% (6.8% men vs 26.4% women) had an anxiety disorder according to SAST (≥24). According to univariate regression models, increasing age,
female gender and the absence or minor participation in KAPI were associated with higher risk of depression; low levels of participation in KAPI and female gender were associated with higher risk of anxiety.

Conclusions: Our findings document the association of higher prevalence of anxiety and depression in elderly with limited social activity in primary care centres, and especially affect more men and aged in widowhood. These determinants of isolation should be factors of mental health prevention management in primary care.

References


S138

Panic disorder as presenting symptoms of multiple sclerosis
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Background: Multiple sclerosis (MS) is a chronic demyelinating disorder characterized by multiple neuropsychiatric symptoms Psychiatric disorders and symptoms may accompany the course of MS as primary or secondary reasons. (1,2). We will present a case report with panic disorder as presenting symptoms of multiple sclerosis.

Materials and methods: A 47 years old female patient admitted to psychiatry clinic with attacks of palpitation, sweating, dispnea with a feeling of heart attack. These symptoms were present for 3 months, 3-4 times a week and the patient started to have expectation anxiety. She was diagnosed as panic disorder and started paroxetine 20 mg/day. After one month her symptoms were not beter, and because of reference delusions as if people were looking at her, olanzapine 10 mg/day was added. After another month of medication, because she was not better, she was sent to neurology and she had a cerebral magnetic resonance imaging (MRI). In her neurologic examination her deep tendon reflexes were found to be increased. In her MRI a right frontal 10 × 5 mm periventricular deep white matter plaque and multiple subcortical white matter hyperintense plaques were seen. In her serebrospinal oligoclondal band was positive. She was diagnosed as multiple sclerosis and after 5 day treatment of methylprednisolone 1000 mg/day, her psychiatric symptoms disappeared.

Results: Psychiatric symptoms may be primary symptoms of a new demyelination episode.

Conclusions: A MS patient may admit with psychiatric symptoms and there may be a misdiagnosis of psychiatric disorder.

References


S139

Evaluating the effect of aquatic extraction of Cannabis sativa seed on spatial memory consolidation in rats
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Background: The existence of an endocannabinoid system in the central nervous system that consists of G protein-coupled CB1 cannabinoid receptors and endocannabinoids, including arachidonylthanolamide and 2-arachidonoyl glycerol, has gained general acceptance. Recent reports suggest that this system may serve several physiological functions including learning and memory functions.

Materials and methods: 40 male wistar rats (3-4 month, 320-260 g) were completely divided into 4 experimental groups and control group. Cannabis sativa seed was extracted with Soxhlet apparatus. To test spatial memory, Morris water maze (7 days,4 trails) was used. Experimental groups with 50 mg.kg-1, 100 mg.kg-1, 150 mg.kg-1, 210 mg.kg-1 were injected in the peritoneal (IP) orderly and after one hour of injection spatial memory was done.

Results: The result show that experimental groups (50 mg.kg-1, 100 mg. kg-1, 150 mg.kg-1 doses), for learning time have significant level deduction in the comparison of control group (p < 0.05), but experimental group with 210 mg.kg-1 dose has not significant level in the comparison of control group (p < 0.05).

Conclusions: We demonstrate tetrahydrocannabinol can change brain function as learning and memory processes and probably was done with Depolarization-Induced Suppression of excitatory (DSE) mechanism in the CA1 area of Hippocamp that with neurotransmitter regulation cause to neuroplasticity.

Acknowledgements: We thank Dr Heravi and Mr Kazemi for money support and Azad University of Mashhad for prepare Lab for Test.

References


S140

Cluster 'A' in personality disorders category - development and perspective
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Background: With the development of psychiatric science the group of Personality Disorders becomes clearly defined and within the various existing classifications a well-defined group stands out, characterized mainly by the cold affect and by the lack of empathy. The historical overview of the Paranoid and the Schizoid Personality Disorders reveals extremely high historical (temporal) stability of their diagnostic criteria. This stability and endurance of the Cluster A raises the question of its' potential freedom from historical and/or cultural contextual effects.

Materials and methods: 42 male psychiatric patients, aged 18 to 25, diagnosed with Personality Disorder and Adjustment Disorder, were examined for this study. The participants were evaluated with psychiatric clinical interviews, as well as with semi-structured interview for assessment of personality disorders - International Personality Disorders Examination (IPDE).

Results: The current research confirmed the initial hypothesis that the reliability of the diagnostics criteria for the Cluster A is high, as is the validity of the diagnosis itself. Despite the fact that the sample group was ethnically diverse, the Bulgarian variation of the method did not reveal specific cross-cultural differences between participants from different backgrounds.

Conclusions: The criteria for Cluster A, unlike the criteria for the other types of Personality Disorders, were found to be cultural and historically insensitive.

References


S141
Does heroin addiction makes temperamental changes?
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Background: Investigation of specific personality traits is still in focus of modern psychiatry for years. The target usually pursues identification of those personality traits, described as a predisposition of addiction. But the question of fowl and egg is still open: are these traits are predispositions or they are consequences of heroin personality change. Based on “mathematical” admission that temperament traits describe an unchangeable basic concept we verify our hypothesis over addicted population.

Materials and methods: Heroin addicted and healthy group was assessed with TEMPS-A questionnaire to evaluate statistical significant differences between groups. 50 Heroin addicted and 50 healthy controls were engaged in this research. The target group includes in-patients hospitalized for heroin dependency treatment. Patients with concomitant psychiatric or organic mental disorder were excluded from enrolment. Healthy controls were randomly selected.

Results: The results demonstrate statistically significant differences between groups by “depressive” and “irritable” temperaments.

Conclusions: This study doesn’t have ambition to give the right answer for the big question about predispositions or consequences, but it may gives idea for the right questions.

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S142
Association of CYP2D6*4 genetic polymorphism on the metabolism of Donepezil with Alzheimer’s disease in Indian population
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Background: Alzheimer’s disease (AD) is the most common adult form of dementia. 1 It is an age-associated neurodegenerative disorder pathologically characterized by the abnormal accumulation of intracellular neurofibrillary tangles and extra cellular amyloid plaques in selected brain regions. Donepezil is a cholinesterase inhibitor currently being used in the treatment of Alzheimer’s disease is metabolized via CYP2D6 enzymes. The present study was undertaken to investigate CYP2D6*4 polymorphism on the serum concentration of Donepezil with responders and non-responders to Alzheimer’s patients.

Materials and methods: 40 Alzheimer’s patients with responders to donepezil drug and 40 Alzheimer’s patients with non-responders to donepezil drug were investigated for CYP2D6*4 polymorphism using polymerase chain reaction - restriction fragment polymorphisms (PCR-RFLP). Allele frequencies were derived from genotypic data. Drug responders - non-responders’ comparisons were made using Chi-Square tests. Deviations from the Hardy -Weinberg equilibrium were also tested. Drug levels of Donepezil were determined using HPLC method.

Results: The CYP2D6*4 Polymorphism was seen to be in Hardy - Weinberg equilibrium and showed significant allelic association and genotypic association between responders and non-responders of donepezil. Genotypic P = 0.05; OR = 0.39 (0.13-1.5); Allelic: P = 0.008; OR = 2.79(1.20-6.58).

Conclusions: Our finding suggest that the CYP2D6 *4 genetic polymorphism may be associated with the individual differences in donepezil metabolism. An individualized dosage regimen design incorporating such genetic information would help to increase the clinical efficacy of donepezil in Alzheimer’s patients.

Reference

S143
Evaluating the effect of aquatic extraction of Cannabis sativa seed on spatial memory consolidation
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Background: The existence of an endocannabinoid system in the central nervous system that consists of G protein-coupled CB1 cannabinoid receptor and endocannabinoids, including arachidonylethanolamide and anandamide, 2-rachidonylglycerol, has gained general acceptance. Recent reports suggest that this system may serve several physiological functions thus, this research has tried to examine the role of Tetrahydrocannabinol on learning process and spatial memory consolidation.

Materials and methods: 40 male wistar rats (3-4 month, 320-260 g) were completely divided into 4 experimental groups and control group. Cannabis sativa seed was extracted with Soxhlet apparatus. To test spatial memory, Morris water maze test (7 days, 4 trials) was used experimental groups with 50 mg.kg-1, 100 mg.kg-1, 150 mg.kg-1, 210 mg.kg-1 were injected in the peritoneal (IP) respectively and after one hour of injection spatial memory was done.

Results: The results showed that experimental groups (50 mg.kg-1, 100 mg.kg-1, 150 mg.kg-1 doses), for learning time have significant level deduction in the spatial memory and learning in rat.

Conclusions: The research findings show that, Cannabinoid components injected dose dependent, can be effective on memory and learning processes in Morris water maze test.

Acknowledgements: We thank Dr Heravi and Mr Kazemi form money support and Azad university of Mashhad, Department of Physiology from prepare Maze and Materials.

References
Background: Extremely low-frequency magnetic fields (ELFMF), have been reported to produce a variety of biological effects, interfere with the activity of the brain and may cause behavioral and cognitive disturbances. Some efforts have been made to investigate the incidence of ELFMF on human health and animal physiology and behavior.

Materials and methods: 30 male rats were completely divided into 3 groups (2 experimental and control). Exp1, group that were exposed EMFs (50 Hz frequency, 2 mT intensity) for 20 minutes. Exp2, group that were exposed EMFs (60 Hz frequency, 2 mT intensity) for 20 minutes. For similar conditions control group were situated into set of EMFs for 20 minutes. Saphal memory was done with Morris water maze (6 days, 4 trails).

Results: The results show that exposed to EMFs(50 Hz60 Hz frequency, 2 mT intensity) are significantly better in practice related to spatial memory in comparison with control group.

Conclusions: Our results demonstrate that exposed ELFMF are significantly better in practice related to spatial memory in comparison with control group.

Acknowledgements: We thank Azad University of Mashhad for Support.

References

S145
Reference data for derived Trail Making Test scores in Greek healthy population
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Background: The Trail Making Test (TMT) via part B (TMT-B) has been widely used in the evaluation of the executive functions [1]. Apart from the direct scores (time to complete part A and B), derived TMT scores (B-A, B/A, B-A/A) are more and more used, as sensitive measures of prefrontal functioning [2-4]. The aim of the present study was to provide reference data from a large sample of Greek healthy participants in derived TMT scores.

Materials and methods: Six hundred and forty-three healthy participants (aged between 16-83 yrs and with an educational level between 6-18 yrs) were included, satisfying the exclusion criteria of medical, psychiatric and neurological disorders. From the TMT performance, we further calculated the following derived scores: the difference score (B-A), the ratio score (B/A) and the proportional score (B/A-A).

Results: For the entire sample (cf/dr: 382/261; age: 48.5 ± 17 yrs; education: 12 ± 3.5 yrs), derived mean scores for (B-A) was 61.7 ± 43.6 seconds (range: 1-325 seconds), for (B/A) was 2.3 ± 0.8 (range: 1-7.4), and for (B-A/A) was 1.3 ± 0.8 (range: 0.01-6.4). At p < .05, age was significantly associated with (B-A) (r = 0.53), (B/A) (r = 0.27) and (B-A/A) (r = 0.27) scores. Significant correlations (p < .05) were also emerged between years of education and the three previously mentioned derived scores (r = -0.20, r = -0.13, r = -0.13, respectively). Gender was unrelated to derived TMT scores (r < .05, p n.s.). Based on post-hoc comparisons between age groups (per decade of age) and education groups (6-9 yrs, 10-12 yrs, 13-18 yrs), we stratified our sample according to age and years of education and present reference data for the three derived TMT scores as mean (sd).

Conclusions: The Greek reference data for the derived TMT measures, stratified by age and education, are presented for application in clinical and experimental practice as useful indices in identification of probable executive dysfunction.

References

S146
Cognitive dysfunction in non-demented patients with Parkinson’s disease
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Background: Parkinson’s disease (PD) is a common degenerative disorder, with clear evidence of cognitive impairment, mostly of executive and visuospatial functions [1-4]. The aim of the present study was to evaluate the neuropsychological (nps) profile in a sample of Greek non-demented PD patients.

Materials and methods: One hundred and thirty-nine non-demented PD patients (82cf/57%; age:62.3 ± 9.2, education:11.0 ± 3.7, disease’s duration:12.2 ± 7.3), diagnosed between 1990-2000 according to explicit and generally accepted criteria based on neurological clinical examination, and 139 well-matched healthy controls (HC, 82cf/57%; age:62.4 ± 9.2, education:11.0 ± 3.5) were included in the study. Both groups underwent a comprehensive series of neuropsychological tests, covered the domains of attention, learning and memory, language and academic skills, perceptual, constructional and visuomotor dexterities, verbal and visual reasoning, and executive functions. Patients did not show motor disabilities severe enough to interfere with nps performance.

Results: Statistical analysis was applied and the alpha level was set at 0.1% because of multiple comparisons. PD patients showed significantly worse performance (p < .001) compared to HC on most of the administered nps tests. When effect sizes (Cohen’s d) were calculated, the magnitude of mean difference between HC and PD was small to medium (0.5 ≤ d ≤ 0.7) on tests of language and academic skills, verbal and visual reasoning, except for the large effect size in the Picture Completion WAIS subtest (d = 0.8). On tests of attention, memory, perceptual, constructional and visuomotor dexterities, as well as executive functions, Cohen’s d values corresponded to medium-large and large effect sizes (1.2 ≤ d ≥ 0.8). Disease’s duration wasn’t significantly associated (p n.s.) with patients’ nps performance. Within PD group with less than 10 years of disease’s duration, a substantial proportion of patients (>50%) still scored less than the 5th %ile of HC performance on some tests of memory and executive functions. Age at onset was significantly associated (p < .001) with specific measures of memory and executive functions, with patients developing the disease in older age revealing worse performance.

Conclusions: Neuropsychological dysfunction is present in patients with Parkinson’s disease even in early stages and in absence of severe motor impairments. Most affected cognitive domains are emerged those of executive functions, visuoperceptual and constructional dexterities, verbal and visual memory, as well as attention.

References


S147 Expression of NR1 subunit of NMDA receptor and PSD-93/95 in rat hippocampus affected by NR1/NR2 antisense oligodeoxynucleotide Monika Vrajcová1, Věta Bubeníková-Valečková1, Jan Kláštka1
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Background: Abnormal protein expression of N-methyl-D-aspartate (NMDA) receptors essential subunits (NR1, NR2) and of associated post-synaptic density proteins (PSD-95, PSD-93) were observed in schizophrenic patients (post-mortem studies) [1,2], NMDA receptors containing NRN2A/B subunit associate in vivo with synapses with PSD-93 and PSD-95 [3]. In the present study, we have silenced the expression of NR1 and/or NR2 proteins in vivo with the goal of assessing the influence of that protein’s alteration on the prepulse inhibition of acoustic startle reaction (PPI) and on the expression of related PSD-93/PSD-95 proteins.

Materials and methods: We used antisense oligodeoxynucleotide for NMDA-NR1 individually or in combination with NR2A or NR2B (aNR1, aNR2A, aNR2B) in the rat hippocampus and evaluated the PPI. Western blot was employed to assess the expression of affected proteins (NR1, NR2A and NR2B) and associated PSD-95/93 proteins.

Results: Changes in expression of NR1 were found. We observed a significant decrease in the hippocampi of rats affected by the combination aNR2A/aNR2B when compared with controls; yet we did not detect changes in other applications. In addition, we found significant changes in the expression of PSD-95, namely a decreased level of this protein in groups treated with NR2A or NR2B. There were no significant changes in NR2A/B and PSD-93 expression and in PPI.

Conclusions: Despite the fact, that the short term silencing of NR1/NR2 did not change PPI, there were changes in expression of PSD-95, which were connected with the NR2A/B subunit whose protein expression was not changed. This suggests that the association of PSD-95 with NR2A/B may occur in the early phase of biosynthesis.

Acknowledgements: This work was supported by grants GACR 309/09/ H072 and MSMT CR 1M0517.

References:

S148 Results of five years study of the epidemiological characteristics of psychotic patients participated in the program of Day Hospital, in the Hellenic Center for Mental Health and Research, Branch of Heraklion, Crete Eftichios Michelakis1,2, Charalampos Baxtas1, Maria Louloudi1, Chariklia Volikou1, Amalia Gourniezaki1, Panagiotis Petrantonakis1, Nikolaos Makanaras1, Nikolaos Makanaras1
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Background: The purpose of this study was the description of the epidemiological characteristics and the results of the therapeutic interventions in the Day Hospital(DH) of Mental Health Center(MHC) of Heraklion, Crete, and more specifically for psychotic patients, over five years.

Materials and methods: Our sample consisted of 62 psychotic patients (44 men and 18 women) who participated in the DH of the MHC, in groups of 10 and for six months period, between the year 2003 and 2008. Data was analyzed with SPSS 15.

Results: The majority of the participants were between the age 26-35 years (41%) and 36-45 years (33,9%) old .71% were diagnosed with psychosis, 11,3% bipolar, while 14,5% had more than one diagnoses. Among the participants 79% came from the city of Heraklion and the rest from rural areas, 92% were never married or divorced, on the other hand 94% lived with some family members. Although, 72,6% had a high school or higher level education, 87,1% were either unemployed or disabled to work. A 56,5% of our participants had been hospitalized in closed psychiatric units and 49,4% reported a family history of mental disorder. Duration of participation in DH was >6 months for 53,2% of our sample and 53,2% was compliant with treatment. Moreover, compliance to treatment was negatively correlated to recurrence (p = 0.036) and positively to the duration of participation in the DH (p = 0.011). On the other hand pharmaceutical interventions included administration of antipsychotics (82,3% atypical, 9,7% typical), antidepressants (56,5%), mood stabilizers (22,8%) and benzodiazepines (25,8%). Medications were in tablets for 79%, while 16% were on intramuscular medications. Other therapeutic interventions included occupational therapy (66,1%), group therapy (85,5%) and crisis intervention (90,3%).

Conclusions: Our DH mainly applies to young and middle age psychotic patients, with severe impairment of their function improving compliance to their treatment and reducing the recurrence of the disorder.

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1. Sakata O, Shiina T, Saito Y: Multidimensional directed information criteria. Paragatis Petranonakis1, Vagia Kaltsa, Leontios Hadjileontiadis Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Thessaloniki, Thessaloniki, Greece

S149 Selective EEG analysis for emotion recognition using multidimensional directed information criteria Paragatis Petranonakis1, Vagia Kaltsa, Leontios Hadjileontiadis Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Thessaloniki, Thessaloniki, Greece

Background: Brain waves captured by multiple electrodes during an electroencephalogram (EEG) recording, are derived as time series signals that represent the brain activity of various scalp sites. One important feature of these multiple time series is the information flow from one to another that under specific processing can reveal useful brain functionality.

Materials and methods: In this work, the Multidimensional Directed Information (MDI) [1] concept is adopted in order to examine the flow of information between EEG recordings from three different scalp sites with the objective to bring out and define the interconnections of different scalp sites of frontal and prefrontal cortex during an emotionally charged situation. In the line of these objectives, EEG signals were recorded from 16 healthy right-handed subjects during a specifically designed emotion elicitation experiment. Two monopole and one dipole EEG channels were placed at Fp1, Fp2 and F3/F4 positions respectively, according to the international 10/20 system [2].

Results: The EEG signals were analyzed using MDI as a parameter that could identify the EEG sections that contribute the most to the emotion recognition. In this way, an efficient emotion categorization could be achieved by keeping the effective parts of the EEG signal and further analyze it feeding a classifier towards the development of a robust and effective emotion recognition system from EEG recordings.

Conclusions: The encouraging preliminary results justify the feasibility of the proposed approach, stressing the importance of the targeted selection of the information source within the EEG recordings before any further categorization analysis.

Acknowledgements: The authors would like to thank all the 16 subjects participated in the experiment for their patience during the tedious EEG recording phase.

References:
Increased levels of ethane, a non-invasive, quantitative, direct marker of n-3 lipid peroxidation, in the breath of patients with schizophrenia

Materials and methods: Samples of alveolar air were obtained from 20 subjects with schizophrenia and 23 age- and sex-matched healthy control subjects. The air samples were analyzed for ethane using mass spectrometry.

Results: The mean level of ethane in the schizophrenia sample (5.15 (S.E. 0.56) ppb) was significantly higher than that of the healthy controls (2.63 (S.E. 0.31) ppb; p < 0.0005). A further sub-analysis showed that nicotine dependence was unlikely to be the cause of this difference.

Conclusions: These results suggest that the measurement of exhaled ethane levels may offer a non-invasive direct marker of increased n-3 lipid peroxidation in schizophrenia.

Structural brain changes in patients with Huntington’s disease participating in a randomized, double-blind, placebo-controlled trial of ethyl-eicosapentaenoic acid

Background: Ultra-pure ethyl-eicosapentaenoic acid (ethyl-EPA) is a semi-synthetic, ester of the long-chain fatty acid eicosapentaenoic acid which has been shown to be associated with clinical improvement in motor functioning in Huntington’s disease. The aim was to determine the extent to which it might reduce the rate of progress of cerebral atrophy.

Materials and methods: High-resolution MRI cerebral scanning was carried out at baseline, six months and one year in 30 patients with stage I or II Huntington’s disease who took part in a randomized, double-blind, placebo-controlled trial of 2 g daily ethyl-EPA or liquid paraffin, using a 1.0 T Picker HPQ scanner. For each subject and each pair of T1 images, the two-timepoint percentage brain volume change was estimated in a double-blind fashion using SIENA (Structural Image Evaluation, using Normalisation, of Atrophy), Version 2.1 (S151) and the posterior thalamus.

Conclusions: Treatment with ethyl-EPA is associated with significant reduction in brain atrophy in Huntington’s disease, particularly in the head of the caudate and the posterior thalamus. No other drug tested in HD has shown this effect.

Acknowledgements: We thank the MRC and Amarin Neuroscience.

Prevalence of cataract in adult Down’s syndrome patients

Materials and methods: An in-patient population of 68 adults (35 males and 33 females) with Down’s syndrome, aged between 28.9 and 83.3 years, underwent ophthalmological examination for the presence of cataracts.

Results: Overall, the prevalence of cataract was 16.2%, with no significant difference between males (17.1%) and females (15.2%). In those aged between 45 and 64 years, the prevalence was 16.7%, rising in those aged 65 to 75 years to 28.6%.

Conclusions: Compared with the general population, the prevalence of cataract in Down’s syndrome was raised in those aged 45 to 64, but not in those aged 65 to 75 years; the latter might be a function of the relatively small number of patients in this age group. The increased prevalence of cataract found in those in the 45- to 64-year-old age group may be the result of increased levels of CuZnSOD, in turn resulting from the location of the associated five exons of SOD1 on chromosome 21. These elevated levels of superoxide dismutase may give rise to increased levels of reactive species, including hydrogen peroxide and hydroxyl radicals, which may increase the risk of cataractogenesis.

Brain cell membrane motion-restricted phospholipids in patients with schizophrenia who have seriously and dangerously violently offended

Background: This study directly assessed, for the first time, whether, as expected under the membrane phospholipid hypothesis of schizophrenia, there was a change in brain cell motion-restricted membrane phospholipids in vivo in male forensic patients with schizophrenia who had seriously and violently offended (homicide, attempted murder, or wounding with intent to cause grievous bodily harm) while psychotic, by quantification of the broadband resonance signal from 31-phosphorus neurospectroscopy scans.

Materials and methods: Cerebral 31-phosphorus magnetic resonance spectroscopy was carried out in 15 male patients with schizophrenia who had seriously and violently offended (homicide, attempted murder, or wounding with intent to cause grievous bodily harm) while psychotic and in 12 age- and sex-matched normal control subjects. Data were obtained using a 1.5 T Marconi Eclipse system with a birdcage quadrature head coil dual-tuned to proton (64 MHz) and 31P (26 MHz). T1-weighted magnetized resonance images were acquired for spectral localization. Spectra were obtained using an image-selected in vivo spectroscopy sequence (TR = 10 s; 64 signal averages) localized on a 70 x 70 x 70 mm^3 voxel.

Results: There was no significant difference in the broadband responses between the two groups, with the mean (standard error) percentage broadband signal for the patients being 57.8 (5.6) and that for the
control subjects 57.7 (6.0). The phosphomonoesters and phosphodiesteres

Conclusions: Our data suggest that the membrane phospholipid

Acknowledgements: We thank the Three Bridges Medium Secure Unit and the MRC.

Regional grey matter volumetric changes in forensic schizophrenia

Materials and methods: Structural cerebral MRI scans of 26 patients

Results: The two groups were matched with respect to age, gender and

Acknowledgements: We thank the Three Bridges Medium Secure Unit and the MRC.

The Spectrum Clozaril Clinic model: 12 years of positive outcome

Background: The aim of this study was to carry out the first voxel-based

Materials and methods: This poster provides an overview of a unique

Results: Results indicate that Clozaril delivered within this model

Conclusions: The Spectrum Clozaril Clinic Model is a promising model to

Prolonged benzodiazepine elimination in addicted patients as a reason of early post-detoxification relapses

Background: Multiplicity of benzodiazepine dependency complications

Materials and methods: Presented data come from 200 cases.

Results: Uncorrelated of initial benzodiazepine levels and symptom-

Conclusions: Underestimation of benzodiazepine elimination time and

Reference

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Cumulative effects of risperidone long acting injection and narrative

Background: Clozaril (generic form Clozapine) is an atypical antipsychotic

psychotic disorders who have not benefited from conventional

Materials and methods: This poster provides an overview of a unique

Conclusions: The Spectrum Clozaril Clinic Model is a promising model to

The Spectrum Clozaril Clinic model: 12 years of postive outcome

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Materials and methods: Method: Case study. Gathering self-reported data, psychotherapy sessions for the patient and his/her family, data analysis. For relevance purposes we shall present below the case of a 30 yo Caucasian male with a history of alcohol consumption since he was 12 yo. During the past year his alcohol consumption started to follow a daily pattern. The patient’s psychopathological presentation is dominated by psychomotor agitation, hynpic disorders, hetero-agression, interpretative thoughts, depressive ideation, low self-esteem, social, professional and family disinsertion. Following the first four hospital admissions during which he received thymoregulatory, antidepressive and sedative agents his alcohol consumption increased and symptomatology intensified. During his fifth hospital admission the patient received risperidone 2 mg per day, as a neuroleptic agent, followed by risperidone long-acting injection 25 mg once every 2 weeks. After hospital discharge his condition improved incrementally. Two months after hospital release he relapses for two days but is able to cease consumption without external help. The patient is currently professionally and socially active and his family interactions are healthy. Along with risperidone long-acting injection therapy he was admitted to family therapy sessions every week during the first two months, every two weeks for the next two months followed by a monthly session during the next 6 months.

Conclusions: Using risperidone long-acting injections along with narrative therapy has protracted the abstinence period and has also contributed to social and family reinsertion.

References

Background: Atypical antipsychotics have been reported to induce neuroleptic malignant syndrome (NMS). The precise pathophysiologic mechanism is unknown but dopamine blockade is pivotal. The serotoninergic action of atypical antipsychotics may also be implicated because serotonin may inhibit dopamine release and worsen hypodopaminergic states. Amisulpride, which is a selective D2/D3 receptor antagonist and has no affinity for serotonin receptors may be less associated with the development of NMS.

Materials and methods: A Medline search was conducted for articles published till July 2009 relative to the induction of NMS by atypical antipsychotics in non-geriatric patients with schizophrenia or schizoaffective disorder. We used the key-words neuroleptic malignant syndrome and the names of all first-line atypical antipsychotics, with the exception of paliperidone, which has been recently marketed.

Results: The number of the reported cases of atypical antipsychotic-induced NMS in the defined population was 24 for risperidone, 18 for olanzapine, 7 for quetiapine, 9 for aripiprazole, and 5 for ziprasidone. Only two cases of amisulpride-induced NMS were revealed. In one case the patient was vulnerable to the induction of NMS which had been caused by three different atypical antipsychotics.

Conclusions: In the absence of large prospective studies regarding the induction of NMS by atypical antipsychotics, which are difficult to perform due to the rarity of the syndrome, definite conclusions cannot be reached. Amisulpride may be less than the other atypical antipsychotics associated due to the rarity of the syndrome, definite conclusions cannot be reached. Amisulpride may be less than the other atypical antipsychotics associated with NMS, and this may be accounted for by its lack of serotoninergic action. Amisulpride may be a useful option for re-started antipsychotic medication in patients recovering from NMS.

Background: Several recent papers report on impaired of cognitive functions in healthy offspring of patients with bipolar mood disorder [1-3]. The aim of this study was an assessing of the performance on the Wisconsin Card Sorting Test (WCST), measuring executive functions, in the offspring of bipolar patients compared with gender- and age matched healthy subjects.

Materials and methods: Fifty persons (17 male, 33 female), aged 18-52 (30 ± 7) years made the total adult offspring population of patients with bipolar mood disorder. Among them, two had a history of depressive episodes, and another eight scored positively on Mood Disorder Questionnaire [4]. The head-to-head age- and gender-matched healthy subjects were used as a comparison group. The computer version of WCST designed by Heaton et al. (1993) adapted with instructions in Polish was used in all subjects. The following domains of WCST were measured: the percentage of perseverative errors (WCST-P), the percentage of non-perseverative errors (WCST-NP), the number of correctly completed categories (WCST-CC), the percentage of conceptual level responses (WCST-5conc), and the set to the first category (WCST-1st cat).

Results: The results in the total offspring group were significantly inferior compared to matched control group in the categories of perseverative errors (WCST-P) and conceptual responses (WCST-5conc). These differences remained significant after Bonferroni correction. The offspring of patients with some affective morbidity (n = 10) did not show differences with forty healthy patients.

Conclusions: The results of our study show the impairment of some aspects of executive functions, connected with prefrontal cortex activity, in healthy offspring of bipolar patients.

References

Background: It is well known that Chronic Obstructive Pulmonary Disease (COPD) is a disease with psychological comorbidities [1,2]. Especially depression (which its prevalence ranging between 10% and 42%) affects physical functioning in these patients and may lead to increased risk of COPD exacerbations and rehospitalization [3]. Depression characterized, among other symptoms, by a significant weight loss or weight gain or decrease or increase in appetite nearly every day. Aim of the study is to investigate the association between depression and Body Mass Index (BMI) in patients with COPD.

Materials and methods: The study was performed in one of the largest hospitals in Greece and included 119 (95 male and 24 female) outpatient with COPD. The patients responded to the Beck Depression Inventory (BDI). BMI, age and education level were also recorded.

Results: Mean age and mean education level were 65.21 (± 7.99) and 11.05 (± 4.22), respectively, with no statistical difference as to genders (T-test p > 0.05). Mean BDI score was 11.69 (± 7.54), while a percentage of 52% presented with moderate to severe depression. The percentage of
women with positive BDI score was increased compared with that of men (x² p < 0.05). Mean BMI was 27.22 ± 4.71, while a percentage of 59.6% presented BMI > 25 (with no differences between genders). Regarding the total sample, no correlation was observed between age, education level, BMI and BDI score (Pearson correlation p > 0.05). However, separating the subjects as to gender, we observed a positive correlation between BMI and BDI score in women (spearman correlation p < 0.05).

Conclusions: This study confirms the high prevalence of depression in COPD patients, and especially in women. Additionally, the association between depression and BMI seems to be clearer in female gender. However, further studies are required in order to clarify these findings.

References


S161 Family support and vital exhaustion in patients with chronic obstructive pulmonary disease

Athanasios Tselebis, Dionsios Brats1, Georgios Moussas1.

Materials and methods: One hundred and fifty two patients (99 males and 53 females) outpatients with COPD participated in the study. Family support and vital exhaustion were assessed by using the 13-item Julkunen Family Support Scale (FSS) and the Maastricht Questionnaire (MQ), respectively. Mean age was 65.3 (± 8.1) and mean education level was 10.97 (± 4.2, in years). As to clinical measurements, mean FSS score was 54.87 (± 7.1), whereas mean MQ score was 19.83 (± 8.46), which is significant higher than the corresponding score (14.94) of the general population (sample t-test p < 0.01). No correlation was observed between age, education level, FSS and MQ (Pearson correlation p > 0.05). In contrary, a strong negative correlation was presented between FSS and VE (Pearson correlation p < 0.05).

Conclusions: Vital exhaustion seems to be present also in patients with COPD. However, further studies are required in order to clarify its associations with the comorbidities of depression and anxiety, which are common in these patients. Finally, our findings suggest the protective role of the sense of family support against vital exhaustion.

References


S162 Prevalence of trait and state anxiety prior a surgery

Christos Skikas, Alexa Maria Gournas, Gergonis Voyagis, Maria Anagnostopoulou1, Dionsios Brats1, Athanasios Tselebis1, Akaterini Mouloú1, Konstantinos Tzoutouzas2, Ibeni Kitis3, Christodoulos Stefanadis1.

Materials and methods: One hundred and fifty two patients (99 males and 53 females), with ASA I-III and mean age 42.10 ± 16.01 years, who were undergoing an operation included in the study. All participants filled out the Spielberger State-Trait Anxiety Inventory (STAI) (2,3) 12 - 15 hours before the operation. The inventory differentiates the state anxiety from the personality's trait anxiety.

Results: Means of state and trait anxiety were 42.55 ± 11.30 and 38.33 ± 8.01, respectively, with significant difference (t-test, p < 0.001). Furthermore, a strong correlation was observed between state and trait anxiety (Pearson Correlation, p < 0.001, r = 0.61). Regarding gender, males had significant higher state and trait anxiety scores (t-test, p < 0.05). In particular, 25.3% of males had pathological state anxiety scores, whereas the corresponding percentage in females was 45.3% (x² test, p < 0.05). Younger patients (18-29 years old) presented significant higher levels of state and trait anxiety compared with the age groups over 50 years (Anova test, p < 0.05). Considering the ASA physical status of the patient, no statistical difference was observed between stages, as to trait anxiety, although patients with ASA III presented higher scores compared to patients with ASA I and ASA II (Anova test, p > 0.05). However, patients with ASA III presented significant higher state anxiety scores compared to patients with ASA I and ASA II (Anova test, p < 0.05). Conclusions: Our findings suggest that younger patients, females and patients with ASA III are more vulnerable to anxiety. Therefore, these factors should be taken into account for the preoperative assessment in order to develop supportive psychological interventions.

References


S163 Sleep disturbance symptoms and their associations with alexithymia, depression and anxiety

Dionsios Brats1, Asimoula Spanopoulou1, Silvia Dmirtu2, Sofia Lagou2, Christina Diamandi1, Athanasios Tselebis1, Georgios Moussas1, Athanasios Karkanias1, Sotiriou Giyptoulos2, Epaminondas Kosmas2.

Background: Several studies indicate that alexithymia and sleep disturbances (especially insomnia) coincide [1]. Aim of the present study...
is to record the levels of alexithymia, depression and anxiety in a sample of patients with sleep disturbances and to investigate the associations between the above factors.

**Materials and methods:** The study included fifty (40 male and 10 female) outpatients who were attending a sleep laboratory of our hospital seeking medical support for symptoms of sleep disturbances. Levels of Alexithymia [2], depression and anxiety [3] [4] were assessed, by using the Toronto Alexithymia Scale (TAS-20), the Beck Depression Inventory (BDI) and the Spielberger Trait Anxiety Inventory (STAI). Age and education level were also recorded.

**Results:** Mean BDI score was 10.8 ± 6.0, mean STAI score was 45.0 ± 11.0 and mean TAS-20 score was 53.8 ± 14.3. Mean age and education level were 54.2 ± 13 and 10.0 ± 4.1, respectively. No correlation was observed between the demographic characteristics of the sample and the scores of the clinical measurements (Pearson correlation p > 0.05). In contrary, a strong positive correlation was presented between TAS-20, BDI and STAI.

**Conclusions:** Our preliminary findings confirm the existence of the association between the sleep disturbance symptoms, alexithymia, depression and anxiety. However, some questions remains: are the associations between sleep disturbances and alexithymia caused by depression and/or anxiety or are independent of them? Further studies are required in order to clarify it.

**References**

S164

**Reversal of symptomatic antipsychotic-induced hyperprolactinemia with addition of aripiprazole**

Paraskevi Kortoni1, Pathrena Peika1, Christina Leotsakou1, Aikaterini Kalogeropoulou1, Markella Fiste1, Georgios Vagionis2, Anastasia Roussi2, Penkis Paterakis2, 

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2Psychiatric Clinic, General Hospital of Chania, Greece.

**Annals of General Psychiatry 2010, 9(Suppl 1):S164**

**Background:** Hyperprolactinemia is a well-recognized adverse effect of treatment with antipsychotic medication. From the second generation antipsychotics amisulpride, risperidone and paliperidone cause marked elevation in serum prolactin levels. Aripiprazole lowers serum prolactin below placebo when used as a single agent and as an adjunctive treatment has been shown, though not consistently, to improve antipsychotic-induced hyperprolactinemia. It may bind to the dopamine receptor more robustly and act as a dopamine receptor agonist in an antipsychotic-induced hypothalamic-pituitary-adrenal axis. We report two cases of successful treatment of risperidone- and amisulpride-induced hyperprolactinemia and amenorrhea by addition of aripiprazole. This strategy was chosen over administration of an adjunctive dopamine agonist or discontinuation of treatment and a switch to a different antipsychotic agent to avoid clinical deterioration.

**Materials and methods:** Case 1: MS M, a 33-year-old woman, had an eight-year history of DSM-IV paranoid schizophrenia with no previous admission. She was involuntary admitted to hospital for her third episode and was effectively treated with risperidone 6 mg. Risperidone was reduced to 4.5 mg two months after discharge. The patient had developed amenorrhea which continued 6 months after lowering the dose of risperidone. Aripiprazole 10 mg was gradually added. After 13 weeks she regained menstruation and prolactin levels fell (from 95 ng/ml under risperidone to 25 ng/ml 65%). The patient remained clinically stable.

**Results:** Both subjects were clinically stable and there was a high potential risk for relapse due to their history. This led us to the addition of aripiprazole which successfully improved hyperprolactinemia. Treatment was safe and well-tolerated. Both patients regained their menstrual periods in more than 8 weeks, a time period that was previously reported. It appears that aripiprazole is effective in normalizing prolactin in some patients and this could become a treatment of choice.

**Conclusions:** When aripiprazole is co-administered with risperidone or sulpiride, it may bind to the dopamine receptor more robustly and act as a dopamine receptor agonist in an antipsychotic-induced hypothalamic-pituitary-adrenal axis. It appears that aripiprazole is effective in normalizing (or partially normalizing) prolactin in some patients and reversing the clinical side effects without serious side effects or sacrificing psychopathology, and this could become a treatment of choice. Contrary to these findings, Paulzen and Gründler reported a lack of an expected decrease of serum prolactin levels by adding aripiprazole in patients treated with amisulpride. A possibility of partial, but not total restoration of symptomatic hyperprolactinemia might be due to the relatively low aripiprazole dose (10mg/day). Receiving aripiprazole 15-20 mg/day with risperidone has been reported to successfully reverse risperidone-induced hyperprolactinemia. The association between aripiprazole dose and prolactin level when used as adjunctive treatment needs to be more fully evaluated.

**References**

S165

**Disclosure of cancer diagnosis: what Iranian patients do prefer?**

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**Background:** Doctors in Iran traditionally prefer to discuss the diagnosis of cancer with family members instead of patients. They are concerned about the psychological impacts of diagnostic disclosure. So it becomes an ethically controversial issue in doctor patient relationship which is practiced differently in various cultures and countries. The aim of this cross sectional descriptive study was to evaluate the amount of information that Iranian patients have and their preference for the disclosure of the cancer diagnosis.

**Materials and methods:** 126 patients admitted for chemotherapy in three different sites were questioned about their knowledge of the diagnosis. Two different structured questionnaires were designed for the people who know and who didn’t know their diagnosis. For the former, the survey concerned their psychological reactions to their situations, whether they would prefer to know about their diagnosis. For the latter, the questionnaire included their preference whether and how to know the diagnosis.

**Results:** 60.31% of the patients knew their diagnosis and 39.68% didn’t know. Among the subjects who didn’t know their diagnosis, 88% preferred
to be more informed about their diagnosis and 68% had some psychological reaction to their situations in spite of their lack of knowledge. Among the subjects who knew their diagnosis, 73.68% preferred to know their diagnosis, 92.1% preferred to be informed directly by their physicians.

Conclusions: The majority of Iranian patients with malignancy want to know the truth and they prefer to be informed directly by their doctors.

References

S166
Neuropsychiatric symptoms in Mild Cognitive Impairment
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Background: Mild cognitive impairment (MCI) is an etiologically heterogeneous condition that is characterized by cognitive changes without impairment of activities of daily living and insufficient to represent dementia. MCI is an important risk state for Alzheimer dementia [1,2].

Materials and methods: A total of 30 subjects, aged more than 60 years old, with either MCI (n = 16) or control group (n = 14) were studied. Neuropsychiatric symptoms (NPS) were assessed using the Neuropsychiatric Inventory scale(NPI). Individual subscores of the 10 NPI symptoms and total NPI scores were compared between the MCI patients and control patients. We identified the prevalence of the symptoms in each group and differences between two groups.

Results: The most common symptoms in the MCI group were dysphoria (39%), apathy (39%), irritability (29%), anxiety (25%) and depression (23%). There were significant differences in apathy, dysphoria, irritability, anxiety, agitation, and aberrant motor behavior between the MCI and control groups. There was a significant difference between the MCI and control groups on total NPI scores (p < 0.05).

Conclusions: The significant differences between MCI and control groups according to NPI scores are important for drawing attention to both differentiating MSI and psychiatric symptoms and their comorbidity. For this reason it is important to diagnose MCI with detailed examination without ignoring psychiatric symptoms.

References

S167
Use of mood-stabilizing drugs in the treatment of major depressive disorder in an outpatient mental health center
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Background: As indicated by the American Psychiatric Association practice guidelines, if a patient with Major Depressive Disorder (MDD) has not responded or achieved only a partial response after 4-8 weeks of therapy, a dose change, switch to a new drug, or augmentation therapy is recommended [1]. Combined use of standard antidepressants with dopaminergic agents and psychostimulants can lead to accelerate and enhance response if administered early in the course of treatment [2].

Materials and methods: Using a sample of 100 patients with diagnosis of MDD who have been visited in Barcelona’s Sant Marti Sud outpatient mental health center during the year 2008, Sociodemographical (gender, age) and clinical data (present toxic consume, presence of psychiatric background, use of antipsychotics) are analysed with SPSS 15.0 statistical package.

Results: Methylphenidate is used in 3% of the sample with an average dose of 20 mg/d. There is a predominancy in the female gender (66.7%), a global average age 66.3±7 years. The psychiatric background most frequently found is the presence of previous depressive disorder episodes (66.7%). None of these patients had toxic abuse nor had been hospitalised.

Conclusions: The use of methylphenidate is still not frequent in our sample as augmentation strategy of the antidepressive treatment. However initial results show that the combination with methylphenidate can be useful for patients in need of a rapid improvement in depression, particularly in those with chronic treatment-resistant depression but the tolerability of the combination may limit its use (2). Further investigation using different treatment to achieve remission in patients with major depression is necessary.

References

S168
Use of mood-stabilizer drugs in the treatment of major depressive disorder in an outpatient mental health center
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Background: Major depressive disorder (MDD) is a common and disabling psychiatric condition. Antidepressants are currently the mainstay of treatment for depression; however, almost two thirds of patients will fail to achieve remission with initial treatment, as a result, a range of augmentation and combination strategies have been used [1].

Materials and methods: Major depressive disorder (MDD) is a common and disabling psychiatric condition. Antidepressants are currently the mainstay of treatment for depression; however, almost two thirds of patients will fail to achieve remission with initial treatment, as a result, a range of augmentation and combination strategies have been used [1].

Results: Mood stabilizers are used in 14% of the sample with a predominancy in the female gender (85.7%), a global average age 50.6±12.2 years. Regarding personal psychiatric background, there’s an absence of these in the first place (64.3%), followed by the presence of previous depressive episodes (21.4%) and dysthymic disorder (7.1%). In none of these cases there was toxic abuse. There is a predominancy in the absence of previous psychiatric hospitalisations (64.3%).

The frequencies of use of mood stabilizers was: topiramate in the first place (50%) followed by lithium, carbamazepine and pregabaline (14.28% each one). However, lithium addition is recommended as a first choice for depressed patients who do not respond to therapy with conventional antidepressants [2].

References
Use of antipsychotics in the treatment of major depressive disorder in an outpatient mental health center

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Background: Antidepressants are currently the mainstay of treatment for depression; however, almost two thirds of patients will fail to achieve remission with initial treatment. Evidence has shown that adjunctive therapy with atypical antipsychotics has the potential for beneficial antidepressant effects in the absence of psychotic symptoms [1].

Materials and methods: Using a sample of 100 patients with MDD who have been visited in Barcelona’s Sant Marti Sud outpatient mental health center during the year 2008, sociodemographical (gender, age) and clinical data (toxic consume, psychiatric background, use of antidepressants) are analysed with SPSS 15.0 statistical package.

Results: Antipsychotics are used in 27% of the patients, with a predominancy in the female gender (77.8%), a global average age of 57.9 ± 12.6 years. There is a predominancy of absence of psychotic background (55.6%) and the absence of previous hospitalisations (66.7%). In 96.3% of the sample there was no toxic abuse.

It is observed the following distribution in the use of antipsychotics: quetiapine and olanzapine (29.6% each one), risperidone (26%), paliperidone (3%). Average dose was 5.7 mg/d for olanzapine, 2.3 mg/d for risperidone, 84.5 mg/d for quetiapine and 6 mg/d for paliperidone.

Conclusions: It is observed an important frequency in the use of antipsychotic treatment for MDD, in relation with the fact that there is growing evidence for the efficacy of atypical antipsychotics for adjunctive treatment of depressive symptoms of MDD. There is scientific evidence that supports the use of the two antipsychotics predominantly used in our sample (olanzapine and quetiapine) [2], but more studies are needed to establish its place in management.

References

Use of benzodiazepines in the treatment of major depressive disorder in an outpatient mental health center

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Background: The reviewers report that a combination of benzodiazepines (BZD) with antidepressants work in favour for the treatment of depression, because it decreases drop outs of treatment and it increases short-term response up to four weeks [1]. Early achievement of symptomatic remission is critical to the long-term success of treatment [2].

Materials and methods: Using a sample of 100 patients with MDD who have been visited in Barcelona’s Sant Marti Sud outpatient mental health center during the year 2008, sociodemographical (gender, age) and clinical data (toxic consume, psychiatric background, use of BZD) are analysed with SPSS 15.0 statistical package.

Results: There is use of BZD in a 76% of the sample, with a predominancy of the female gender (72.4% vs 27.6%), a global average age of 56.55 ± 12.4 years. In relation to personal psychiatric background it can be observed in 47.4% the absence of these, followed by 39.5% in which there is presence of previous depressive episodes. There is a predominancy in the absence of toxic abuse (97.4%) and the absence of previous hospitalisations (81%).

It can be observed the following distribution by frequencies in the use of BZD: diazepam (25%), dipotassic clorazepate (23.7%), clonazepam (14.5%) and alprazolam (10.5%). The average dose was 10.2 mg/d for diazepam, 22.9 mg/d for dipotassic clorazepate, 2.7 mg/d for clonazepam and 1 mg/d for alprazolam.

Conclusions: The use of BZD in the DMM is large in our sample but the potential benefits of adding a BZD to an antidepressant must be balanced judiciously against possible harms including development of dependence and accident proneness, on the one hand, and against continued suffering following no response and drop out, on the other.

References

The psychiatric patient in emergency room and Z zone

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Background: Public mental health in a small area of 8 boroughs and 74,753 inhabitants in the centre of Italy. Mental Health Department during 1 year almost 3500 psychiatric patients: 2.8% of the inhabitants of this small area, people presenting psychiatric disorders during the life, are estimated 25%; and then in this area possibly will be 28,000 persons who needed psychiatric help (OMS: 2001 Mental Health report). Bipolar disorders 33%, anxiety and DAP 28%, schizophrenia 12%, borderline disorders 7%, psychosomatic disorders compulsive behaviour 6%, psychiatric symptoms in neurological disorders 5%, behavioural disorder 4%, social problems 2.8%, ill 1.5% eating disorders, psychiatric symptoms abuse related 0.7%.

Materials and methods: File archives research.

Results: Standardized initial approach step by step in the emergency room or Z zone.

Conclusions: The psychiatric patient in emergency room and Z zone. Drug Treatment parenterally administered.

Step 1 objective problems caused by the initial approach
Step 2 difficulties of gathering initial anamnesis information
Step 3 therapeutics start (usually not standardized attempts of limiting drugs or persuasion method) or treatment of an unconscious patient with suicidal mania
Step 4 finding a suitable hospitalization area in advance to deal with the patient.

Managerial perspectives on employee engagement

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Background: Senior management and leadership are believed to be responsible for the employment of such initiatives and their own level of engagement appears to have a strong impact on the levels of employees’ engagement, theory suggests. This qualitative research explores the
perceived levels, drivers and benefits, as well as the levels of managerial engagement at Organisation A, a leading support services company in the UK. This working paper means to contribute to previous studies of engagement conducted by the Kingston Business School Employee Engagement Consortium.

Materials and methods: In total, 25 managers were interviewed and semi-structured interviews took place in February and March 2009 at the company's headquarters. In this working paper, the research model consists of five thematic principles: drivers and counter-drivers of engagement, methods of engagement, (perceived) levels of employee engagement, (perceived) benefits of employee engagement, and managers' levels of engagement. These five core principles entail all the information needed to test the engagement process in the present organisation. In order to assess the sustainability of the research model, the method of template analysis was chosen.

Results: Not surprisingly, the perceived levels of engagement are moderately high and managers seem to be engaged in their organisation driven by the challenging nature of the work, the recognition they receive and the feelings of accomplishment following a successful task. In line with these, what drives employee engagement is only slightly different: employees seem to be driven not only by the nature of their work but also by the career opportunities available at Organisation A and the collaborative and team-based organisational culture. In terms of benefits, employee engagement seems to lead to heightened organisational performance, improved customer satisfaction and low levels of absenteeism and turnover.

Conclusions: Managers were completely capable of identifying problematic areas in the engagement process and given the necessary resources might be in position to work on improving some critical elements of it.

References

S173
Cognitive restructuring and improvement of symptoms with cognitive-behavioural therapy and pharmacotherapy in patients with depression
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Background: Since 1960, psychological theories of maladaptive behavior began to change their focus from environmental to expectation, control, decision and helplessness on the individual level. After 1965, M.E.P. Seligman introduces the concept of learned helplessness representing a giving up reaction determined by the belief that whatever you do it doesn’t matter.

According to theory [1] there are at least three types of inferences that people can make and this, changes the way people develop or not hopelessness followed by the symptoms of depressive lack of hope when confronted with negative life events [2]: 1) inference on the motive why certain events occur (inferrated cause or causal attribution); 2) inference on the consequences which might result from events taking place (inferrated consequences) and 3) inference on oneself given by events that have happened to oneself at some point (inference of personal characteristics).

In this study we will investigate the efficiency of cognitive-behavioural and pharmaco-therapeutical interventions in changing depression symptoms and improving cognitive, emotional dysfunctions and perception of social support.

We investigate the relation between depression and dysfunctional causal attributions, perception of social support, self esteem, emotions and reaction to daily life stress.

Materials and methods: Pharmacotherapeutic group (PT). The study included 13 patients diagnosed with depression and at the first hospitalization they got disthmia or major depressive episode diagnosis, being subsequently treated. Cognitive-behavioural therapy group (CBT) had 12 participants. Control group (C), 13 participants, was selected considering their scores on SCL-90, DEP scale.

In diagnosis phase, subjects were given to fill in a set of scales similar to psychiatric patients, and it was applied again after 6-7 weeks and at the end of intervention. A group with high scores on BDI and SCL-90, indicating the presence of depression symptoms were tested only in pretest and posttest phases without being subjected to any therapeutic intervention. Patient admitted into the study formed three groups: pharmacotherapeutical group (PT), psychotherapeutical group (CBT) and control group (C).

Psychiatric patients were administrated with antidepressive medication. The psychotherapeutical group followed 18-20 sessions of therapy (one hour average session) over a period of 15 weeks; twice a week in the first two and once a week for the remaining.

In this study we used the following scales: SCL-90; ASQ; SERV; POMS and SMSSP. Attributional Style Quanary (A.S.Q.) is an instrument that measures the 'explaining style' patterns representing the tendency of selecting certain causal explanations for favorable or unfavorable events. Symptom Check List 90-R [3] is an instrument which evaluates the gravity of the symptoms reported by patients. The internal consistency of its subscales is situated between .75 and .86 and for ISG it is .97. Test-retest trust quotient of the two testing phases (T1 and T2) is between .77 and .87.

Multidimensional Scale of Perceived Social Support is an instrument projected to measure the way people perceive social support from three sources: family, friends and significant others. Internal consistency is .91 (12 items). Test-retest trust quotient of the two testing phases (T1 and T2) is between .67 and .80.

Kohn și Macdonald [4] proposed Survey of Recent Life Experiences which they validated starting from 92 items. The internal consistency of the total score was .90 (41 items). Test-retest trust quotient of the two testing phases is between .66 and .78.

Current Thoughts Scale, as its name sugests, underlines the importance of current feelings. The internal consistency of the SGC total score was .84. Test-retest trust quotient of the two testing phases is between .64 and .81.

In time, Profile of Mood States was accepted as an efficient way of measuring psychological stress. The internal consistency ranges between .90 (negative emotions) and .88 (positive emotions). Test-retest trust quotient is between .31 and .56.

Results: After the first 6-7 sessions we can see an increase of self esteem as a state in patients following CBT (\(t(11) = -2.684, p < .02\)), an improvement in the perception of support from others in general \(t(11) = -2.360, p < .03\) and from friends in particular \(t(11) = -2.534, p < .02\). In PT group there is an unexpectedly increase of friends support \(t(12) = -2.226, p < .02\). Negative attributional style or depressogenic style is decreasing between T1 and T2 \(t(11) = 4.568, p < .001\) proving the efficiency of CBT (compared to PT) in improvement of cognitive symptoms of depression. Yet, depressive attributional style in CBT3 is significantly decreasing compared to PT3 proving the efficiency of the cognitive level intervention. On the emotional level, the CBT and PT interventions are equally efficient, fact also sustained by the outcomes compared to C2. Therefore, CBT and PT can generate a decrease of negative emotions. Improvement of symptoms is obvious in CBT3 and PT3 compared to C1 and PT1 the group.

Consider CBT superior to PT in producing changes on the level of cognitive symptoms, indicating a better posttreatment prognosis and a lower rate of relapses. The significant statistic outcome for negative internal \(\times\) group interaction shows that the two factors are not acting independently but in a moderating relation. Both variables are statistically significant (group type and negative internal). That allows us to say that each factor is
moderating the relation of the other with the dependent variable (the change of depression symptoms from T2 to T3).

Conclusions: This research paper subscribes to recent preoccupations for psycho-social implications of learned helplessness in explaining human behaviour (Beck, 1991; Seligman, Schulman, DeRubeis & Hollon, 1999). We analyse the cognitive modifications and symptoms decrease due to cognitive-behavioral therapy (CBT) and pharmacotherapy (PT) in depression. We evaluate the efficiency of CBT compared to PT in socio-cognitive and symptomathological changes as well as the extent to which attributional changes in the first phase of CBT intervention are predictive for subsequent improvement of depression symptoms. We showed that learned helplessness gives an efficient explanation for psychological depression and less for endogenous depression; this statement is sustained also by implementation of the study where we modified maladaptive attributions and the control perspective of the patients.

Finally, we offer a comment about what to measure. In accordance with the hypothesis suggested, we propose that in future studies, in addition to measures such as the ASQ, the following constructs be examined as mediators: (a) the acquisition of problem solving and skills the patient can apply in response to events and (b) the frequency with which the patient applies those skills in daily encounters during the course of therapy. This research underlines, at a practise level, the implications of helplessness quantitative research in clinical psychology, and psychotherapy.

References

S174 Cognitive profile in middle-aged and older bipolar patients
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Background: Cognitive deficits are reported in euthymic and acute phases of bipolar disorder (BD) [1]. However, only few studies have previously evaluated the cognitive profile of middle-aged and older patients affected by BD [2,3]. The main purpose of our study was to analyze the cognitive profile of bipolar patients aged between 45 and 70 years.

Materials and methods: 36 patients with BD (DSM IV-TR) (25 with BD-I and 11 with BD-II) who complained a recent onset of cognitive deficits, were recruited from 2004 to 2009 at the Psychiatric Day-Hospital service of the University Medical School “Federico II”. All patients underwent a comprehensive Neuropsychological assessment, focusing on short- and long-term mnesic and executive functions. A control group was composed by 37 outpatients (45-70 years), followed by the Neuropsychological service for recent outbreaks of cognitive disorders. Exclusion criteria for the control group were psychiatric or neurodegenerative disease as well as cranial trauma.

Results: No statistically significant differences were found between the study population and the control group with respect to the neuro-cognitive profile, even though patients affected by BD-I showed poorer performance in the executive functions, in the oral span and in the logical abstractive skills, when compared to the ones affected by BD-II and to the control-group patients.

Conclusions: Greater focus should be put on cognitive aspects of BD: in particular, in our sample, patients affected by BD-I seem to have a more severe cognitive profile compared with BD-II patients. Further investigations, hopefully with larger samples, are desirable to confirm these findings.

References
S176
Sexual desire and orgasmic disorders in female medical students: preliminary results
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Background: Female sexual problems are age related, progressive and highly prevalent affecting up to 43% of women [1,2]. Reduced sexual desire and/or orgasmic disorders are amongst the most frequent female sexual disorders [1,3].

Materials and methods: The study population included 129 female medical students of the University of Athens, during the academic year 2008-2009. The participants were asked to complete voluntarily and anonymously a self – administered questionnaire which included demographic data and a short questionnaire regarding reduced sexual desire and orgasmic difficulties.

Results: Mean women’s age was 24 years. More than half of them (58.1%) were in a stable relationship, while the majority of them (84.4%) had sexual activity during the last year. Regarding sexual interest, 66.7% didn’t have any difficulties during the last three months, while nearly one third of the women (27%) seem to face some orgasmic difficulties. 39% of the participants believe that women should reach an orgasm in every sexual intercourse and 30.3% admit to sometimes pretend reaching an orgasm. Finally, the majority of women are very or quite satisfied with their sexual life (74.8%), their emotional closeness with their partner (78%) and more than half of them (78.2%) consider sex an important dimension of their total life satisfaction.

Conclusions: Low sexual desire doesn’t seem to be a problem for this group of young women. Orgasmic disorders in this sample are similar to the percentages found by previous studies. Interestingly enough, one third of the participants admit to occasionally faking orgasm to their partner. This group of women presents high levels of sexual satisfaction and emotional bonding, which are important parameters of women’s sexuality. Any interpretations of the present study should be made with caution, because our results were based on a small, non-randomized, specific sample.

References

S177
Sexual behaviors of medical students: preliminary results
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Background: Sexual problems are quite prevalent affecting up to 20-30% of men and up to 43% of women [1-4]. Information about sexual practices may help gain a better understanding of the occurrence of sexual problems and further improve their management.

Materials and methods: The study population included 231 medical students (99 men and 132 women) of the University of Athens, during the academic year 2008-2009. The participants were asked to complete a self - administered questionnaire which included demographic data and a questionnaire regarding sexual behaviors.

Results: Mean age of the participants was 24 years. More than half of them (57.1%) reported having a sexual partner and 75.8% of them reported having sexual intercourse more than once a week. The decision preceded the act by a few seconds or minutes in 82.6% of subjects. Foreplay was important, very important or essential for 97.4% of subjects, while most of them (73.5%) considered that foreplay was equally important for both partners. The majority of participants reported that they don’t have a preferred timing (67.1%) or season (80.8%) for sexual intercourse. For most of the subjects it was very easy or quite easy to talk about sex with their sexual partner (95.2%) or with their friends (87.1%). The vast majority of the students reported informing themselves on sexual issues (83.8%) and information sources were primarily acquaintances (55%) and the internet (44.1%).

Conclusions: Sexuality seems to be important for this group of young adults. The decision to have sex is spontaneous, foreplay is an important component of sexual intercourse and the time of the day or the year doesn’t really matter. Students talk about sex quite open and inform themselves on sexual issues. This study employed a small, specific sample, thus the results are not representative of the general population.

References

S178
Effect of Quetiapine in young schizophrenic patients with tardive dyskinesia
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Background: One of the major challenges in long term psychopharmacological management of schizophrenia is development of side effects, most notably tardive dyskinesia. The problem of tardive dyskinesia (TD) was more prevalent with the use of first - generation anti psychotic medications; the second generation drugs are believed to have a lesser propensity to cause such movement disorder. However, once TD develops the treatment options are rather limited, with the possible exception of Clozapine - usually modestly effective in about half of the patients. Thus there exists a need for searching alternative therapeutic methods for tackling this vexing problem.

Aim: The aim was to find out if use of quetiapine is associated with a decrease in tardive dyskinesia, in young patients of schizophrenia who developed TD on their first anti psychotic medication.

Materials and methods: This was an open label observation study involving six male patients diagnosed as suffering from acute schizophrenia for which they had been prescribed anti psychotic medications, namely haloperidol and Risperidone. The patients went on to develop tardive dyskinesias. The dyskinetic movements were predominantly involving facial and oral areas. The dyskinetic movements were rated with Abnormal Involuntary Movements Scale. Attempts to decrease or withdraw the drugs resulted in re-emergence of symptoms. A trial of quetiapine was carried out with a cross over and taper method of 2-3 weeks. The AIMS ratings were carried out at 6, 4 and 8 weeks intervals. A reduction in the scores on AIMS was observed.

Results: It was observed that young male patients (< 30 yrs.) who had received either haloperidol (5- 12.5 mgs./day) or Risperidone (4- 8 mgs./day) in oral formulations as their first anti psychotic medication. They had these drugs for 4 - 9 month duration. All of them also had received oral trihexyphenidyl (2-6 mgs./day) concomitantly, but still developed involuntary movements. Their personal, family and medical history and physical examination, including neurological examination, were free of any neurological or movement disorder. They were not receiving any other concomitant medications. After cross-taper, quetiapine was used at 300- 600 mgs./day dose. AIMS ratings at 4 and 8 weeks after start of quetiapine therapy revealed a decrease in tongue, lips and perioral movements. Detailed ratings will be discussed at presentation.

Conclusions: Although Clozapine has been found to result in decrease of TD movements; its use is problematic due to side-effects and regular blood monitoring, which is very difficult in developing countries. Quetiapine, associated with least propensity for causing EPSes, appears to be promising for decreasing TD. This case report supports the limited
Evidence base in support of the use of quetiapine for managing tardive dyskinesia, especially in a younger population who themselves have somewhat lesser propensity to develop TD.

References

S179
Effect of the Greek Solutions for Wellness weight management program on quality of life and associated factors in patients with a psychiatric disorder receiving psychotropic medication
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Background: Weight gain is a major side effect of treatment with psychotropic agents [1]. Besides its adverse metabolic effects, weight gain may also impair physical functioning and quality of life (QoL) [2]. Clinical weight management programs are reported to improve quality of life in obese individuals not receiving psychotropic therapy [3], but this has not been sufficiently investigated in patients with psychiatric disorders. The primary objective of this study is to assess the impact of the Greek Solutions for Wellness (SFW) 3-month program, which focuses on nutrition and physical exercise, on QoL in patients with a psychiatric disorder who are taking psychotropic medication and have a weight problem. Secondly it aims to investigate the impact of baseline patient variables (e.g. age, sex, diagnosis) on QoL at month 3.

Materials and methods: This 26-week prospective observational study enrolled 359 patients from outpatient settings routinely carrying out the Greek SFW, from 23/JAN/2007 to 27/FEB/2008. 297 of them entered the program while 62 others who declined, were used as a control group. The QoL instrument Subjective Well-Being under Neuropolitics (SWN), the Clinical Global Impression (CGI) scale, weight (kg), body mass index (BMI, kg/m2) and waist circumference (WC) (cm) were collected at baseline, months 3 (program completion) and 6 (follow up visit). In addition, diagnosis, disorder duration, treatment regimen and demographic characteristics (age, sex) were recorded. The proportion of patients with a QoL improvement (any SWN increase) was estimated together with their 95% CI in both groups at month 3. Further, stepwise logistic regression models were fitted to adjust the SWF effect on QoL at month 3, controlling for baseline potential confounders and first-degree interactions. A sensitivity analysis was conducted after implausible WC values were found in the database.

Results: Patient characteristics were similar across both groups: Out of 359 patients, a total of 198 (55.2%) were female, the mean age (SD) was 40.6 years (10.9), mean weight (SD) 92.9 kg (17.9), mean BMI (SD) 32.2 kg/m2 (5.6). 52.4% of the patients presented with schizophrenia, 30.9% with bipolar disorder and 16.7% other. The mean illness duration was 10.6 years (SD = 8.7). Out of 353 patients still in the study at month 3, 352 were assessable in terms of SWN increase: 206 patients out of 295 in the SFW group (69.8%) (95%CI [64.2, 75.0]) showed QoL improvement and 33 out of 57 (57.9%) (95%CI = [44.1, 70.9]) in the control group. After controlling for baseline potential confounders the difference between the two groups was ORinitial = 1.43 (0.76; 2.67); ORsensitivity = 1.44 (0.77; 2.71). Covariates significantly associated with an improved QoL at month 3 included a low SWN score (ORinitial = ORsensitivity = 0.94 [0.92; 0.96] and a low CGI-S level (ORinitial = ORsensitivity = 0.62 [0.49; 0.79]).

Conclusions: QoL improvement at 3 months in patients with mental illness as well as weight problems and on psychotropics was associated with low baseline SWN and CGI-S scores, while the big majority of the patients following the Greek SFW program reported an improved QoL.

Acknowledgements: The Hellenic EY-ZHN Study Team.

References

S180
Effects of harmful factors and alcohol consumption by mother concerning the mental and physical health of her child
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Background: Mental retardation is a developmental disability that first appears at children under the age of 18. About 5% of the mentally retarded population is affected by severe mental retardation. Approximately 20% of the population with mental deficiency presents moderate mental retardation and about 75% have mild mental retardation. A very important factor that cause mental retardation of child is the alcohol consumption by mother on the pregnancy period.

Fetal alcohol syndrome (FAS) is a group of birth defects occurring in an infant as a result of maternal alcohol abuse during pregnancy. This syndrome was first described in 1968. It is currently the leading cause of mental retardation in western civilisation, outranking Down syndrome.

Materials and methods: To realise this study, we investigated 596 children hospitalized on period of 1999-2001 in Neuropsychiatry Infantile Section of Neurology and Psychiatry Clinical Hospital from Oradea. Among these, 393 have different degree of mental retardation. We realised family investigation and followed the hereditary antecedents, the harmful factors, alcohol consumption by mother, smoking and social and economic situation of families with mentally retarded children.

Results: Among 393 children with mental retardation, 216 have mild mental retardation (63 of them have different harmful factors in their families), 87 have moderate mental retardation (40 of them have different harmful factors in their families) and 90 have severe mental retardation (33 have different harmful factors in their families).

Conclusions: This study shows that in general, when in a family exists one child with mental retardation there exist at least one toxic factor. So, the harmful factor can be added hereditary antecedents and particularly the advanced age of mother. Fetal alcohol syndrome is a group of birth defects occurring in an infant as a result of maternal alcohol abuse during pregnancy period.

Fetal alcohol syndrome is completely preventable. Prognosis depends on the degree of mental and neurological development. The rate of this harmful factor is increased in population from rural environment. FAS is a public health issue.

References

S181
The effect of memantine on cerebral cortex tumor necrosis factor alpha expression in a rat model of acute hyperammonemia
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Background: Literature suggests that proinflammatory mechanisms are implicated in the pathophysiology of hepatic encephalopathy. This is mainly caused by high circulating levels of ammonia (hyperammonemia-HA),
due to liver failure [1,2]. In addition, NMDA receptors are excessively activated during acute hyperammonemia and thus significantly contribute to the brain damage [3]. In fact, blockade of this receptor type is beneficial in experimental models of acute hyperammonemia [3,4]. The aim of this study is to assess the effect of memantine, a non-competitive NMDA receptor antagonist, on the expression of tumor necrosis factor alpha (TNF-α), a major proinflammatory cytokine, in the brain of a rat model of acute hyperammonemia.

Materials and methods: HA was induced in male Wistar rats by two consecutive ammonium acetate intraperitoneal (i.p.) injections of 12 and 8 mM/kg respectively [2]. Another group of rats received memantine hydrochloride (20 mg/kg) 30 minutes before the first ammonium acetate injection, while control group received saline i.p. Rats were decapitated 30 minutes after the last injection and cerebral cortex TNF-α expression was determined with reverse transcription quantitative PCR.

Results: TNF-α expression in rat cerebral cortex was significantly elevated while the administration of memantine hydrochloride diminished its expression.

Conclusions: Memantine manages to suppress the induction of TNF-α, a major proinflammatory cytokine, by acute HA, in the cerebral cortex of rats. Further research is needed in order to determine if the effect of memantine may be attributed to the blockage of NMDA receptors and if it has a similar impact on the expression of other proinflammatory cytokines.

References

S182 Possible correlations between the psychological state and excessive innate immunity responses in ulcerative colitis
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Background: Inflammatory bowel diseases (IBD), including ulcerative colitis (UC) and Crohn’s disease (CD), belong to the autoimmune disorders. The immune system (both innate and acquired) tends to respond to microbial flora of the intestinal mucosa involved in their pathogenesis. The progress of IBD is unknown, characterized by periods of exacerbation and quiescence. Depression and anxiety seem to coincide with relapse of IBD and further research is needed for the clarification of this correlation.

Aim: To further investigate the relationship between the psychological state of UC patients and the gravity of their biopsy during relapse.

Materials and methods: 29 UC patients, hospitalized in two general hospitals for the investigation of a possible relapse of their disease were examined. Methods: Four self-report inventories (Hospital Anxiety and Depression Scale-HADS, Zung Depression Scale, State Trait Anxiety Inventory Form 2/STAI/STAI) were administered to the patients and the scores were correlated with the severity of parameters of their corresponding biopsies.

Results: Positive correlations were observed between the degree of anxiety and depression in the questionnaires and the activation of innate immunity (polymorphonuclear leucocytes and macrophages) in the biopsies of UC patients.

Conclusions: Our findings suggest correlations between the psychological state of UC patients and the intensity of their innate immune response perpetuating inflammation.

References

S183 Simple schizophrenia: case report and review of the literature
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Background: Simple schizophrenia remains controversial. In this study we illustrate the diagnostic complexities of the disorder by emphasizing the importance of the criterion “progressive development of odd behaviour”.

Materials and methods: We report the case of a 35-year-old man with “organic mental disorder”. His medical and psychiatric history notes were peer reviewed and, neuropsychological assessments (WISC and Rorschach), blood tests, EEG and Computed tomography were carried out. Several psychiatric scales (SCID, BPRS, HDS-17, CAS and GAF and MMSE) were also used to establish diagnosis and to evaluate treatment changes. We reviewed the differential diagnosis of the case, the history of simple schizophrenia and its importance both to this case and to current thought about schizophrenia.

Results: The patient had followed a social skills training program in a community setting for two years. At his current state he is being treated with aripiprazole now, with good response.

Conclusions: The review of the literature (historical articles, case reports, epidemiological and tranascultural studies, reviews on reliability and validity and review articles) demonstrates the heterogeneity of the simple schizophrenia diagnosis over the years. However there is a lack of developmental and psychopathological approaches that could provide a better understanding on the disorder. More case reports could contribute to that.

References

S184 Psychosocial interventions in a forensic department
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Background: Schizophrenia often entails difficulties in social and occupational functioning. Frequently the approach followed in the hospital wards is mainly pharmacological and different from that of the community-
based service which is mainly psychosocial. The accumulating evidence on the active role of the person in his or her recovery has had a profound impact on our understanding and interventions in relation to that severe mental illness especially when is accompanied with violent behavior.

Materials and methods: At present there are 60 patients in our department. They have committed crimes and are under compulsory detention and treatment. Since 2000 a variety of psychosocial interventions began to be implemented in concert with medications to minimize symptoms and improve community adjustment in mentally disordered offenders hospitalized in the Forensic Unit of the Psychiatric Hospital of Thessaloniki.

Results: In order to motivate our patients and finally to strengthen their sense of purpose and self-confidence, a rehabilitation program including 20 patients started in 2000 co-sponsored by the European Union. Since 2005 only 12 patients participate in this program now funded from the Ministry of Health and Social Welfare. The program includes several working teams inside or outside the ward, still inside the hospital, leaving limited opportunities to use social skills.

Conclusions: It is the hope that these interventions, and in a larger scale, will allow people with mental illness and violent behavior to more speedily and effectively reintegrate into their families and community so that they may lead more satisfying lives. Although there is a lot that can be done towards rehabilitation, especially for this group of patients, it seems that regular work performance feedback and goal setting are especially important for reducing clinical and social morbidity.

S185 High prevalence of bulimia nervosa in lupic patients

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Background: Systemic erythematosus lupus is a chronic, inflammatory autoimmune disease and its common association with anxiety, depression and other psychiatric disorders is well known. Eating disorders in this particular population are not the center of attention. In this paper we describe the findings of our 9 months study with lupic patients at Hospital das Clínicas.

Materials and methods: We selected and interviewed 82 female patients (aged 18 to 40) suffering from lupus, using Mini International Neuropsychiatric Interview (MINI), as instrument of interview and diagnostic. Afterwards, patients diagnosed as bulimic were individually analysed.

Results: Twelve of the 82 patients had criteria for bulimia nervosa (14.63 per cent). Those patients had low self-steam, persistent preoccupation with weight gain related to medication. Many of them were also very preoccupied with other physical aspects, such as skin damage and hair loss.

Conclusions: An alarming high incidence of bulimia nervosa was found in this sample and this may indicate lupic patients are susceptible to eating disorders, considering their exposition to steroids and other medications related to weight gain. More studies are necessary in order to confirm such data.

References

S186 Dominant temperament traits among the inmate population: a comparative study

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Background: Multiple studies document specific personality traits, relatively homogeneous in the structural aspect. We attempt to extrapolate a purely psychological examination approach, applying the clinical conceptualizations of H. Akiskal. This study aims to asses the existence of statistically significant differences between the TEMPS-A scale ratings of subjects serving a prison sentence and a control group.

Materials and methods: We examined a total of 148 patients divided into 2 groups, balanced in quantity and gender: an experimental (prison inmates) (N = 74) and a control group (N = 74). The experimental group included subjects serving sentences in penitentiary institutions within the Republic of Bulgaria’s territory. The control group was randomly selected. The TEMPS-A scale was applied to subjects in both groups.

Results: We found statistically significant differences between the average values in the two groups regarding all scales except for the Hyperthimic temperament.

Conclusions: The Hyperthimic temperament does not have a specific prognostic value regarding criminal behavior. This temperament can be expected to reflect the degree of adaptation. A question stands as to whether the TEMPS-A scales describe the temperament of premorbid personality or can register changes in the structure of personality as a consequence of substance abuse.

References
References


S188
Increased attention for negative life events is associated with an elevated risk for premenstrual symptoms

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Background: The majority of healthy women experience some degree of fluctuation of mood and physical phenomena paralleling their reproductive cycle. While in most women this does not significantly interfere with everyday functioning in a smaller portion of women it causes distress severe enough to seek medical help. Earlier it has been found that premenstrual syndromes show an association with perceived stress. However, we hypothesise that even in healthy women, the experience of more severe symptoms in the late luteal phase of the menstrual cycle is related to the perception of life events. The aim of our study was to investigate the association between severity of late luteal phase symptoms and perception of positive and negative life events in a sample of healthy women.

Materials and methods: 88 healthy women not meeting criteria for any DSM-IV premenstrual phase-associated disorders completed the PRISM calendar for three consecutive menstrual cycles. Subjects also completed the Objective and Subjective Event Checklist during the follicular phase of the first cycle. Association between PRISM score change from the follicular through the late luteal phase and life event variables were investigated using Generalized Linear Model Analysis (GENMOD).

Results: The PRISM score change showed a significant positive association with the ratio of positive subjective life events and a significant positive association with the ratio of negative subjective life events. We found no significant association in case of the objective life events.

Conclusions: The results of our study indicate that women manifesting a more marked increase of symptoms during the late luteal phase of the menstrual cycle are more likely to notice negative subjective life events and less likely to notice positive subjective life events. However, there was no difference in the number of positive and negative objective life events observed. This suggests a trait-like negative bias in the perception of life events present throughout the whole reproductive cycle which may play an important role in the emergence of premenstrual symptoms.

S189
The s allele of 5-HTTLPR: a possible common link in the background of endophenotypes related to suicidal behaviours?

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Background: Suicide is complex phenomenon with multiple causes and underlying processes which is an equally great challenge for contemporary science and our society in general. Several models have been proposed to explain suicide and several studies aimed at delineating the factors and processes playing a role in its background. The most well-known and widely accepted risk factors of suicidal behaviour deal mainly with psychological and socioeconomic factors, however, we know less about the biological, neurochemical and genetic correlates and contributors of suicidality. Suicidality has been associated with impulsive aggression, and the majority of suicides are committed by depressive patients. Recently an increasing number of studies point to an association between certain types of suicidal behaviour. The suggestion that conflicting results may be due to inhomogeneous suicidal samples indicates that different phenotypes of suicides may have profoundly different underlying factors even on the biochemical and genetic level. Research shows that the s allele of the 5-HTTLPR is associated with violent completed suicides. This polymorphism has also been related to affective disorders, however, evidence supports that the association between suicide and the s allele is independent of the association between the 5-HTTLPR and depression. The s allele is also associated with several traits, such as impulsive aggression, hopelessness and affective temperaments, which may serve as important endophenotypes in delineating the genetic background of different types of suicidal behaviour. Expanding our knowledge and understanding of the role of the serotoninergic system in suicidal behaviour may lead to better recognition of suicide and of the prodromal symptoms of suicidal behaviour and may also play an important role in developing drugs with a potential to reduce suicidality.

S190
A preliminary study of functional imaging upon placebo analgesia in progressive multiple sclerosis

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Background: In light of solid data regarding the extent of the placebo response as well as the numerous arguments in favor of the randomized, placebo-controlled clinical trial, placebo analgesia has widely been tested and documented as one of the most robust placebo effects. Newly developed brain imaging tools such as functional magnetic resonance imaging (fMRI) have provided systematic evidence for the neurophysiological substrates involved in placebo analgesia [1,2].

Materials and methods: In the present study, the replication of a well-documented expectancy manipulation model combined with a placebo intervention via acupuncture [3] was conducted to determine neural mechanisms underlying placebo analgesia in a group of 12 patients (6 females; mean age, 38.4 +/- 4.5 SD) with progressive multiple sclerosis (MS) matched for age, sex, duration of disease, disability and subjective pain ratings. Procedures involved two behavioral testing sessions and one fMRI scanning session as well as the administration of expectancy and pain subjective rating scales.

Results: Subjective pain ratings indicated a significantly greater reduction in the placebo-control group as compared to the untreated condition (before/after treatment). The functional MRI signal difference between post-treatment and pre-treatment sessions was subtracted from the same difference in the non-treatment control group (post- and pre-treatment phases) indicating significant changes in mainly two of the so-called pain-sensitive brain regions such as the bilateral rostral anterior cingulated cortex (rACC) and the lateral prefrontal cortex.

Conclusions: Such findings are not consistent with research data from a wide range of neuropathies utilizing variant placebo treatments [4], suggesting that placebo analgesia as a result of expectancy can be detected in progressive multiple sclerosis yet, be subserved by the aforementioned brain regions. Future directions involve the study of brain activation patterns as a function of modality of placebo treatments with analgesic effects and identifying MS-specific forms of confounding as related to placebo analgesia.
S191
Job burnout, self-efficacy theory and job satisfaction in a sample of Greek bank clerks

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Background: The aim of this study is the exploration of the job burnout syndrome in Greek bank clerks as well as the examination of the demographic factors that seem to have an impact on it. Based on Maslach and Jackson’s [1] theory, the job burnout syndrome has three components: emotional exhaustion, depersonalization and reduced professional efficacy within the workplace. In addition, we examined the correlation between job burnout and two other concepts, self-efficacy as described by Albert Bandura [2] and job satisfaction. Finally, we sought to examine whether the three components of the job burnout syndrome differentiate in relation to some demographic characteristics of the sample (i.e., age, educational level, working experience, gender and personal contact with customers).

Materials and methods: The following questionnaires were used: The Greek version of the general self-efficacy scale of Shwarzer, the Maslach Burnout Inventory - General Survey (MBI-GS), the Oldenburg Burnout Inventory (OLBI), the Job Satisfaction Questionnaire and a demographic characteristics questionnaire.

Results: The relationship between job burnout and self-efficacy was not found to be statistically significant, whereas job satisfaction was correlated with some MBI and OLBI dimensions.

Conclusions: All demographic factors, except for gender, were correlated to job burnout dimensions. Last but not least, it would be interesting to study the relationship between self-efficacy and job burnout in other professional groups as well.

References

S192
Job burnout and self-efficacy survey among elementary school teachers in Greece

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Background: Emotional exhaustion, depersonalization and reduced professional efficacy within the workplace are the three dimensions of the job burnout syndrome. In this study, we examined the levels of job burnout in a sample of 100 teachers of elementary education. Also, we sought to identify the relationship between job burnout and general self-efficacy, teachers’ self-efficacy and group self-efficacy. Moreover, we looked into the relationship between job burnout and the three types of self-efficacy with teachers’ perceptions of particular work-related values. Job burnout dimensions and self-efficacy are also studied in relation to teachers’ demographic characteristics.

Materials and methods: Job burnout was measured using the Maslach Burnout Inventory (Educators Survey) [1]. Self-efficacy was measured with the Shwarzer and Jerusalem’s [2] questionnaire. The work values questionnaire was a balanced approach and questions were given on a 6-point scale.

Results: Female teachers presented higher levels of job burnout, whereas teachers over 50 years old presented higher levels of self-efficacy than those between 31-40 years old. The three types of self-efficacy were negatively correlated with the three job burnout dimensions.

Conclusions: In particular, this research stresses the importance of the relationship between group self-efficacy and job burnout. What is more, job burnout seems to have an impact on people’s perceptions about their occupation. Moreover, it would be interesting to study the relationship between self-efficacy and job burnout in other professional groups as well.

References
Background: The present pilot study was the adaption of receptive and expressive language tests (ROWPTV and EOWPT) for Greek children aged from 12 years till 14 years and 11 months, and to locate any differences between receptive and expressive language.

Materials and methods: The commercial versions of the tests were adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 300 participants (m: 150, f: 150) recruited from Greek Junior High Schools at region of Epirus. The sample was independent from origin and socio-economic situations. Children with medical problems excluded, because it will influence the test results. Results: Statistical analysis of the data revealed that the results obtained are generally consistent to other results reported. No statistically significant differences were found according to sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach > .846, & .812).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability, high content validity. The participants demonstrated clear patterns of responses and there were no differences between expressive and receptive language.

The Test of Word Finding (TWF - 2). A pilot study and validation of the test in normal Greek population aged from 7 years till 7 years and 11 months

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Background: The present pilot study was the adaption of receptive and expressive vocabulary test (EOWPT) and ROWPTV) for Greek children aged from 6 years till 6 years and 11 months. The Test of Word Finding, (TWF - 2), 2nd edition (2000) - used in this research - was originally created by Diane German in 1985.

Materials and methods: The commercial version of the test was adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m: 50, f: 50) recruited from Greek pre - schools settings at the region of Agrinio. The sample was independent from origin and socio - economic situations. Medical examinations’ were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach .766).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

The Test of Word Finding (TWF - 2): a pilot study and validation of the test in normal Greek population aged from 9 years till 9 years and 11 months

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Background: The present pilot study was the adaption and validation of word finding for Greek children aged from 6 years till 6 years and 11 months. The Test of Word Finding, (TWF - 2), 2nd edition (2000) - used in this research - was originally created by Diane German in 1985.

Materials and methods: The commercial version of the test was adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m: 50, f: 50) recruited from Greek pre - schools settings at the region of Agrinio. The sample was independent from origin and socio - economic situations. Medical examinations’ were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach .766).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

The Test of Word Finding (TWF - 2): a pilot study and validation of the test in normal Greek population aged from 9 years till 9 years and 11 months

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Background: The present pilot study was the adaption and validation of word finding for Greek children aged from 6 years till 6 years and 11 months. The Test of Word Finding, (TWF - 2), 2nd edition (2000) - used in this research - was originally created by Diane German in 1985.

Materials and methods: The commercial version of the test was adapted in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m: 50, f: 50) recruited from Greek pre - schools settings at the region of Agrinio. The sample was independent from origin and socio - economic situations. Medical examinations’ were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (a - Chronbach .766).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.
and changes were contacted, for the best representation of the Greek version. In this research took part 100 participants (m: 50, f: 50) recruited from Greek pre-school settings at the region of Agrinio. The sample was independent from origin and socio-economic situations. Medical examinations' were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent other results reported. No statistically significant differences were found according or sex. Also reliability and validity test were contacted and showed high criterion (α - Chronbach .852).

Conclusions: The test appears to be sensitive to that age for the Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

### S199 The Test of Word Finding (TWF - 2). A pilot study and validation of the test in normal Greek population aged from 10 years till 10 years and 11 months)

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Background: The present pilot study was the adaption and validation of the test for Greek children aged from 10 years till 10 years and 11 months. The Test of Word Finding (TWF - 2), 2nd edition (2000) - used in this research - was originally created by Diane German in 1985.

Materials and methods: The commercial version of the test was translated in Greek language by a linguist, three speech language therapists and 2 native speakers of Greek language, having proficiency in English, and two native speakers of English having proficiency in Greek, and changes were contacted, for the best representation of the Greek version. In this research took part 200 participants (m: 50, f: 50/per age) recruited from Greek pre-school settings at the region of Agrinio. The sample was independent from origin and socio-economic situations. Medical examinations' were also requested, so no medical problems could probably influence the test results.

Results: Statistical analysis of the data revealed that the results obtained are generally consistent to other results reported. No statistically significant differences were found according to sex. Also reliability and validity test were contacted and showed high criterion (α - Chronbach .803).

Conclusions: The test appears to be sensitive to the pre-school aged Greek population and presents satisfactory criterion, internal consistency, temporal stability, interrater reliability. Also the test showed high content validity, as the participants assessed demonstrated clear patterns of responses, but further changes must be done for the Greek version in clinical and research settings.

### S200 Evaluation of functionality in families with a member diagnosed with bipolar disorder

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Background: Affective disorders represent a pathology with chronic, recurrent character, in a continuous growth which affect different categories of population causing serious socio-economical desinsertion and expensive costs. The notion of "maniac-depressive psychosis" was used for the first time by Krepelin in 1913, in the German region. K. Leonhard and Scandinavian Psychiatry and later on Angst and Peris differentiate the notions of "mono-unipolar and bipolar psychosis". Duner (1976), divides the bipolar disorder into the first degree - major depression and mania, second degree bipolar disorder - major depression and hipomania.

The family is an important support for the patients. Family therapy contribute to the increase of quality of the patient and his/her family life.

Aims: The study intends to focus on the functionality of a family with a patient diagnosed with bipolar disorder tip II. The results will be compared to a witness sample of families that do not have a member that suffers from a mental disease.

Materials and methods: A sample of 10 families that summed up a number of 30 persons have been included in the study. The gender repartition was 63.3% (19 males) and 36.6% (11 females). People aged 17 to 69 were included in the study, average: 42.2 years old, standard deviation 15.1, mode 26, mediana 44.5. We evaluated functionality of families using The Family Functioning Scale (FFS). As a comparison, we used the results obtained in "The clinical study on psychodynamics over a family's relationships in the psychiatric clinic", published by Ph.D. Silvia Trandafir in 2005, from which we have taken the data regarding the so-called normal families in Romania. In the above-mentioned paper, a sample of 132 families were studied, sample that summed-up 323 persons.

Results: The following results were gathered: positive affect 32,23, communication 36,4, conflictuality 25,9, worries 41,23, and rituals 40,36. The results represent an average of the values obtained through the scale in the depression periods and those of hipomania.

Conclusions: The fifth components that come from the FFS measure the most important aspects of the functionality of the families. The study revealed significant differences between the component of the two types of families (with and without sick members). Families have a big adaptability to everyday problems, one may speak of a normality of the families with a Second Degree Bipolar Affective Disorder member (patient).
S201
Subjective health definition and health behaviors in persons suffering from schizophrenia
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Background: Identification an importance of health as a value is considerable in preparing rehabilitation programs for patients suffering from mental disease, especially schizophrenia. Treatment should contain not only pharmacy treatment, but also social support and many changes in the environment to make their lifes more satisfying.

Materials and methods: 1. List of Health Criteria - LKZ (by Z. Juczyński) consist of 24 affirmations describing three heath variants: physical, psychical and social. This test is used to identify a health definition.
2. Health Behavior Inventory - IZZ (by Z. Juczyński) consist of 24 affirmations describing different types of health behaviors.
3. 30 patients (men) suffering from schizophrenia, 25-35 years old.

Results: Patients suffering from schizophrenia define health as ability to cooperate with other persons, to enjoy life and to control their feelings, emotions and vehemence. Persons suffering from schizophrenia as distinct from healthy persons declare more scrupulous behaviors related with control visit to psychiatry and listening their suggestions. Moreover they declare greater gwilliness to gain more medical informations about their disease (causes and treatment) and avoiding stress and strong emotions.

Conclusions: The most important result is that persons suffering from schizophrenia have very different kind of health definition, so if we want to construct rehabilitation programs, we have to try better to understand their perception of value.

References

S202
Association of menstrual cycle related symptoms with mood changes
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Background: Nearly 80% of women experience some worsening of physiological and psychological symptoms a few days before the onset of menstruation, and these symptoms have an influence on well-being, and behaviour. Due to the premenstrual-period related symptoms relationship, family, and work-related conflicts may occur. Even economical loss has to be taken into consideration due to decrease in ability to work, and staying out of work. The aim of our study was to investigate the association between mood changes throughout the menstrual cycle phases of healthy women.

Materials and methods: 88 healthy women not meeting criteria for any DSM-IV premenstrual phase-associated disorders completed the STAI State Anxiety Scale (STAI-S), SCL-51 and the ZSDS during first cycle on three predefined days (early follicular, late follicular and late luteal phase). Data were analysed using Generalized Linear Model Analysis (GENMOD).

Results: A significant effect of phase of the cycle was observable in case of the state anxiety scale (F = 6.27, p = 0.0022), the SCL-51 total score (F = 5.31, p = 0.0055), the somatization subscale of the SCL51 (F = 4.16, p = 0.0167), the depression subscale of the SCL51 (F = 4.58, p = 0.0111), the obsessive-compulsive subscale of the SCL51 (F = 3.63, p = 0.0278) and the interpersonal sensitivity scale of the SCL51 (F = 5.71, p = 0.0038). Significant effect of phase also emerged on the ZSDS (F = 3.14, p = 0.0452).

Conclusions: In case of healthy women there is a significant fluctuation during the mensutal cycle in anxiety, somatisation, depression, obsessive compulsive symptoms and interpersonal sensitivity, so in the majority of women psychological well-being is significantly associated with the phase of the cycle. In case of psychological and psychiatric investigations, cycle phase thus should be taken into consideration since it may influence measurements even in case of healthy women.

Acknowledgements: These studies were supported by the Sixth Framework Programme of the EU, LSHM-CT-2004-503474 and the PhD Fellowship Program of the Semmelweis University, Ministry of Culture and Education, Hungary.

References
Background: Guillain-Barre syndrome (GBS) is an acute, autoimmune polyradiculoneuropathy affecting the peripheral nervous system, usually triggered by an acute infectious process. It is included in the wider group of peripheral neuro-neurotrophies. There are several types of GBS, but unless otherwise stated, GBS refers to the most common form, acute inflammatory demyelinating polyneuropathy (AIDP). Clinical hallmarks of this syndrome include symmetric progressive flaccid muscle paresis, areflexia, ataxia, dysautonomia, and respiratory insufficiency in the presence of an increased cerebrospinal fluid protein content, as well as electromyography studies demonstrating evolving demyelination.

Materials and methods: We report a 20 years old female that after the permanence in the ICU presented to us with a depressed mood. In the progress of the II from the state of anxiety (especially evident at the initial phase of the disease during the dissemination and maximum intensity of paralysis) she went to a clear presentation of depressive symptoms during the phase of remission. After few days in the neurology clinic she met the criteria of a major depressive episode that was treated with mirtazapine 15 mg daily.

Results: There were mental status changes in 31% of GBS patients and in 16% of controls [1]. Vivid dreams (19%), illusions (30%), hallucinations (66%, mainly visual) and delusions (70%, mostly paranoid) were included. They appeared a median 9 days after disease onset (range 1-40 days, during the progression or the plateau of the disease), and last a median 8 days. Seven (16%) patients experienced the symptoms before their admission to the ICU. Hallucinations were frequently hypnagogic, occurring as soon as the patients closed their eyes. In an older publication [2] anxiety (62%), acute stress disorder, depressive episodes (67%) and brief reactive psychosis (20%) were observed.

Conclusions: In GBS not only severe psychosis may occur, which may go unreconised due to the severity of the neurological motor deficits, but also fatigue and depressive episodes as major restrictions of quality of life after the acute phase of GBS. Those are probably the major debilitating factors in chronic inflammatory neuropathies. Symptomatic treatment remains largely empirical and more studies are necessary.

References

S204
Guillain-Barre syndrome and mood disorders
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Background: Clinical study of the correlation of plasma Vitamin B12 levels and mood disorders in a patient with history of long term treatment with antiepileptic drugs. A female patient with bipolar disorder II, treated in the near past with carbamazepine and sodium valproate, during her stay in our clinic ward mentioned weakness and loss of sensation in both arms, accompanied with a filling of unstable walking and hemidia. After the full neurological clinical evaluation and examination with structural neuroimaging procedures such a CT scan and MRI, our attention was moved to the possible relationship between the reported symptoms with the B12 serum levels. As the levels were 150 pg/ml and our patient's blood cell values do not reveal megablastic anaemia, we started substitute treatment, provided that she had been taking antiepileptic medicine for years and had low toxicity of B12. At following neurological examinations the patient's clinical icon had improved. Carbamazepine and sodium valproate are widely used as maintenance treatment of bipolar disorder. Although the alteration of accumulation of B12 in serum is not totally acceptable by scientists, there are indications for the relation between antiepileptic medicine and reduced levels of B12 at least at cerebrospinal fluid folate. Additionally, the combination of any inefficiency with the chronic alcoholism that is often present in this category of mental patients and the rise of life expectancy creates the need of a bigger demanded quantity of B12 in their diet.

Materials and methods: Clinical examination, laboratory tests, neuroimaging and bibliographic research.

Results: The full spectrum of relations between B12 and psychiatric illness is still not clear. Much of the evidence comes from case-control and cross-sectional studies. Cohort studies and definitive randomized-controlled trials to test the therapeutic benefit of B12 are required to confirm or refute any causal relationship. Evidence suggesting a causal relationship between the disturbed vitamin metabolism and the abnormal mental state.

Conclusions: The introduction in routine laboratory test of the determination of B12 serum levels under the evidence of the association of B12 deficiency and low serum B12 values in patients with mental disorders and atypical psychiatric symptoms may help. As the neuropsychiatric severity by vitamin B12 deficiency and the therapeutic efficacy depends on the duration of signs and symptoms, the B12 levels should be evaluated in every patient with history of treatment with antiepileptic drugs, resistant depressive disorders, dementia, psychosis or risk factors for malnutrition such as alcoholism or advancing age associated with neurological symptoms, anaemia, malabsorption, gastrointestinal surgery, parasite infestation or strict vegetarian diet.

References

S205
Anticonvulsant treatment and mood disorders. A Vitamin B12 key role?
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Background: There is evidence that facial emotion recognition is disturbed in schizophrenic patient’s [1] and is associate with other neurocognitive deficits [2]. Some evidence suggest that affect recognition is an important aspect of psychosocial functioning of patients with schizophrenia [3]. In this study we assessed recognition of facial emotional expression in schizophrenic patients and its relationship with selected clinical and neuropsychological variables as well as with social functioning.

Materials and methods: Twenty-three patients (mean age 32,3 SD 8,7; mean duration of illness 100 months SD 80) who met the DSM-IV criteria for schizophrenia-paranoid type, hospitalized at the Department of Adult Psychiatry University of Medical Sciences Poznan, Poland were involved in the study. At time of testing the mean PANSS score was 86,6 (SD 17,7). To assess facial emotion recognition we applied the computerized Penn Emotional Facial Recognition (ER40) task [4]. Cognitive performance was studied using Wisconsin Card Sorting Test. Social functioning was measured with Social Functioning Scale. The control group of healthy volunteers matched for gender and age was included.

Results: Patients performed worse than control group on the total correct responses, particular recognition of faces expressing fear (p = 0.002) and sadness (p = 0.02). The median time for correct response was
S207
The role of comorbidity in delineating the etiopathomechanism of disease: the co-occurrence of migraine with aura and restless leg syndrome
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Background: The etiology and patomachanisme of migraine is not yet fully understood. This may be related to the fact that the etiopathology of disorders comorbid with migraine (depression, restless leg syndrome) is also not fully known. The common well-known syndromes of migraine attack include nausea, vomiting, drowsiness, and its comorbity with restless leg syndrome (RLS) and related neurogenetic and neurochemical research in the past years led to the proposal of the pathogenetic role of the dopaminergic system in the development of migraine. RLS affects about 10-15% of USA population and shows a 17% comorbidity with migraine. RLS is a sensomotor disorder showing a circadian pattern which worsens in a quiet awake state (especially around falling asleep). Often a permanent sleep-wake disorder develops with mental and affective disturbances. The origin of RLS is idiopathic in 30-40% of cases but it can also be familiar. In the background of secunder RLS there i

S208
Evaluating the effect of Cannabis sativa seed extraction on memory
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Background: Δ9-THC is a psychotropic component of Cannabis sativa plant, studies show this matter can bind Cannabinoid receptor in CA1 area of Hippocamp. Thus the aim of this study is evaluation of the effect of aqua extraction Cannabis sativa seed on spatial memory consolidation in rats.

Materials and methods: Cannabis sativa seed was extracted with Soxhlet apparatus. To test spatial memory, Morris water maze (7 days, 4 trails) was used. Experimental groups with 25 mg.kg−1, 50 mg.kg−1, 150 mg.kg−1 were injected in the peritoneal (IP) and after one hour of injection spatial memory was scaled.

Results: The results show that experimental groups (50 mg.kg−1, 100 mg. kg−1, 150 mg.kg−1 doses), for learning time have significant level deduction in the comparison with control group (p < 0.05).

Conclusions: We demonstrate Cannabis sativa seed in low doses can cause Spatial memory improvement but in high dose has not significant level in comparison with control group.

Acknowledgements: We thank Azad University for support.

References
**S210**

**PANDA Questionnaire in the Greek population: preliminary data**

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*Annals of General Psychiatry 2010, 9(Suppl) 1:S210*

**Background:** The aim of this work is to validate in greek population the PANDA Questionnaire for the assessment of mild cognitive deficits and dementia in patients with Parkinson’s disease.

**Materials and methods:** The study included two groups. The first consisted of 20 patients with Parkinson’s disease, who were outpatients in the Movement Disorder Clinic and the Memory Clinic of the Neurological Clinic of two public health general hospitals and a university hospital. The second consisted of 20 healthy controls. The two groups were matched for age and education. Patients with Parkinson’s disease were evaluated by an experienced clinical neuropsychologist with Mini Mental State Examination, Clock Test, Instrumental Activities of Daily Living. Healthy controls were evaluated only with Mini Mental State Examination, in order to ensure normal cognitive status. In the two groups, PANDA Questionnaire was also administered.

**Results:** PD patients performed statistically significantly worse than controls in all PANDA subtests, except the first subtest of immediate recall, where the two groups did not differ. PANDA is very well correlated with all neuropsychological tests. Healthy controls were intact cognitively with all instruments.

**Conclusions:** Greek version of PANDA can be an effective tool. PANDA has a good correlation with all tests used in this study and differentiates well PD patients from controls. Small sample size is a limitation of the study. In order to complete the validation study, we need a bigger sample.

**References**


**S212**

**Alcohol use disorders: a trans-cultural study among the Slavic and Arabian undergraduates in Belarus**

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*Annals of General Psychiatry 2010, 9(Suppl) 1:S212*

**Background:** The pattern of alcohol use might vary among people of different cultural backgrounds. Differences in alcohol use and related problems among undergraduates of various ethnic groups - Slavs, Arabs in Minsk, Belarus were analyzed.

**Materials and methods:** In a randomized anonymous study, we analyzed the results of 1345 Slavic, 120 Arabian undergraduates in Minsk, Belarus. All respondents were administered questionnaire containing the AUDIT, including other alcohol-related questions. The AUDIT cut-off point was set at 8.

**Results:** Overall, 91.1% Slavic, 63.3% Arabian undergraduates were alcohol users. A total of 16.3% Slavic, 32.5% Arabian problem drinkers were identified. Generally, beer was the most preferred alcoholic beverage among the undergraduates of both the Slavic and Arabian population.

**Conclusions:** Differences in the pattern of alcohol use and related problems exist among various ethnicities - Slavs and Arabs in Belarus. The Slavs had higher percentages of alcohol users, but relatively lower proportion of problem drinkers, compared to the results of the Arabs. Higher AUDIT scores were recorded for the Arabs. No significant differences were noted in the preference for alcoholic beverages among all ethnicities.

**S213**

**Alcohol: use and related problems - prevalence among foreigners and the natives in Belarus**

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*Annals of General Psychiatry 2010, 9(Suppl) 1:S213*

**Background:** Alcohol use is a major public health problem. The problem of alcohol use might defer among the natives and foreigners in a given cultural milieu. Aim: To screen for the prevalence of alcohol use and proven. Disorders in episodic moderate drinkers are retained within a period of 7-10 days after moderate alcohol use. The non-drinkers had increasing BGC in relation to their initial level in all phases of the experiment (\( b < 0.001 \)). Increase in BGC of alcohol users was observed only within the first 2 hours (\( p < 0.05 \)). Thereafter, a significant fall in BGC was observed in the 4-6 hrs of the experiment in relation to the BGC of non-drinkers and its level after 2 hours. Episodic moderate drinkers had 26 times higher errors on various tests than the abstainers (\( p < 0.001 \)). The errors made on various tests increased with decrease in BGC (\( r = -0.63; \ p < 0.01 \)).
related problems among the native Belarusians and foreigners in the general students population in Belarus.

Materials and methods: A total of 1517 respondents (172 foreigners and 1345 native Belarusians) from all major cities in Belarus enrolled for the survey. Standardized AUDIT, CAGE and MAST questionnaire including other alcohol-related questions were used as a measure. All three questionnaires were administered since it has been suggested that the CAGE might show less sensitivity, compared to the results of the MAST and AUDIT in some population [1,2]. The Student’s t and Pearson, χ² tests were employed for analysis of results.

Results: Overall, 90% native Belarusians and 62% foreigners were alcohol users. Problem drinkers were 16% native Belarusians and 30% foreigners. A significant increase (in approximately 2 times) in the rate of alcohol use after a 2-4 years stay in Belarus was noted among the foreigners (p < 0.05).

Conclusions: There is a significant difference in the pattern of alcohol use among the foreigners and native Belarusians. The rate of alcohol use and related problems is higher among foreigners, compared to the native Belarusians.

References

S214
Alcohol-related glucose-dependent functional system of error processing
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Background: Ridderinkhof and colleagues in 2002 [1] reported that moderate "acute" alcohol intake reduces the amplitude of the ‘error-related negativity’, a negative deflection in the electroencephalogram associated with error commission in speeded response time tasks. Their work is however, subject to a great deal of criticism. To consider arrow flank tasks responses generally, as cognitive functions as a whole is practically non-informative and to say that blood alcohol concentration of 1.0 per mile is a moderate alcohol dose, when legally it is already practically non-informative and to say that blood alcohol concentration of 23 ml of absolute ethanol) after a significant period of time (average of 8 days) leads to increase in error commission under intensive mental activities, using a more complex and standard tasks/tasks (Anfimov geometric tables - for active attention and visual productivity coefficient analyses; ten series of two-digit figures - for visual memory analysis; one-digit figure and letter on increasing row from 3-10 or any vowel letter - for auditory memory analysis and simple mathematical deduction - for operative memory analysis) as a measure of cognitive functions.

Results: The percentage of error committed was dependent on the blood glucose concentration. To explain the results of our study, we proposed a model - "alcohol related glucose-dependent functional system of error processing", in which not only the Ridderinkhof et al model is incorporated, but also the fishbowl model of blood-brain glucose metabolism (Peters et al. Neurosci & Biobehav Rev 28; 2004: 143-180), and in which leptin and insulin - are the main regulators. Neuronal function of the brain is dependent on availability of glucose. Lowering of the blood glucose level (e.g. inadequate energy reserve) leads to loss of impulses. The response-monitoring system in the basal ganglia is then activated.

Conclusions: The error processing capacity of these processes depends on the mesencephalic dopamine system, anterior cingulate cortex activities, and the blood-brain glucose level. The major concepts of the "alcohol-related glucose dependent functional system of error processing" unravel basic knowledge about the effect of drugs and other psychotic substances on the nervous system functions.

References

S215
The effect of alcohol use on academic performance of university students
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Background: Alcohol use by students is a major public health problem, leading to the Secondhand Effects - decrease in academic performance, injuries, blackouts, alcohol dependence etc.

Aim: To determine the extent of alcohol use on academic performance of university students.

Materials and methods: Students (n ~ 46, mean age - 21 yrs) from three major universities (Belarusian State Medical University, Belarusian State Agro-Technical University and Belarusian State National Technical University) in Minsk, Belarus agreed to participate in the randomized anonymous study. All participants received questionnaire containing the AUDIT, MAST, CAGE and other alcohol related questions. Examination scores of each participant were filled into the questionnaire on “Academic Performance” from their examination booklets and were controlled by our researcher, Dr. MO Welcome. Academic performances (the Grade Point Average and the effectiveness to sit for examinations) of all participants from the 1st to 6th semesters of university education were used as objective criteria for problems related with alcohol use. The Pearson χ² and Student’s t-tests were employed for analysis of results.

Results: Alcohol and non-alcohol users were 41.3% and 58.7% respectively. Among alcohol users, the average quantity of alcohol used by one person per month was 37ml of absolute ethanol. A 10.9 - 11.4% higher rate of academic performance was noted among the non-alcohol users only in the 3rd, 4th and 5th, 6th semesters. The cases of injuries and blackouts were higher among the alcohol users by approximately 35 times.

Conclusions: This study shows that alcohol use even in moderate doses leads to decrease in academic performance. The absence of any difference in academic performance among the non-alcohol and alcohol users on the 1st and 2nd semesters was probably conditioned by the large number of students (75% of all alcohol users) who reported alcohol use only in the university. This is because there is a time factor for alcohol effects to be manifested: dose-time response effect of alcohol use - negative effect of alcohol use on intellectual activities of students, using academic performance as a criterion, increases with increase in time and dose of alcoholic drinks.

S216
The first-line causes of alcohol-related problems: a case study among university students in Belarus
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Background: It has been reported that the causes of alcoholism are bioc-socio-psycho-faceted. The present of psychological dysfunctions which are subsequently followed by one of the following subcategories of psycho-behavioral patterns of people (without any psychological dysfunctions) can lead to alcohol use and maybe subsequently, alcohol related problems. Stacy and coauthors have noted that cognitive motivations of a person might be necessary for many behavioral patterns (drug or alcohol use etc). The expected
consequences and perception determine whether the individual starts to use alcohol or not, regularly or misuse it, consequently leading to alcohol problems or not. Expectations and motives are the proximal factors in alcohol use [2-4]. Many theories have been used to explain the pattern of alcohol use in the society. The self-efficacy and motivational theories have been widely used to explain why people use alcohol. Alcohol users are mostly affected by the motives they prefer. For example, social factors are mostly associated with alcohol misuse. Alcohol use to reduce stress is associated with solitary drinking [3-5]. As in many other countries, alcohol use is a major public health problem in Belarus. The aim of this survey was to unravel the psycho-behavioral patterns of young people who use alcohol-use and to identify the major first-line causes of alcohol related problems among young adults in Belarus.

Materials and methods: Minsk is the capital city of Belarus with the highest population of young adults (ages 19-25) from every part of the country. A total 1599 respondents (average age 20.5 years) were administered WHO recommended questionnaire (AUDIT) [5,6], including other standardized questions. To determine the possible psycho-behavioral patterns necessary for the causes of alcohol-related problems, all respondents were divided into two major groups - the problem and non-problem groups. Some psycho-behavioral factors - celebrations, stress at home, days of wages, tradition, sweet properties of wine, to get drunk, use of alcohol to reduce bad mood were considered as potential factors related to alcohol problems. The probability value for significance was set at p < 0.05. Statistical calculations were performed using SPSS 16.0 version of Windows and the criteria of Pearson and Student's t-test.

Results: All in all, 87.5% alcohol users, 17.7% problem drinkers were identified. Drinking to reduce bad mood (16.4%, p < 0.00001); on days of wages (14.9%, p < 0.00001); for the sweet qualities of alcohol (24.8%, p < 0.05); to get drunk (26.7%, p < 0.0001) were reported by 87.5% alcohol users (of which 17.7% were problem drinkers) as the first-line factors of alcohol related problems.

Conclusions: According to the present study, the problem of alcohol use in the general young adult population in Belarus is high. The first-line causes of alcohol related problems were drinking to reduce bad mood, day of wages, to get drunk, for the sweet qualities of alcohol (the first-line psycho-behavioral patterns related to alcohol problems). Psychological dysfunctions which are subsequently followed by alcohol-use and may result in alcoholism (second line causes of alcohol-related problems) and the first-line psycho-behavioral patterns related to alcohol problems in this study are proximal factors in alcohol use and related problems.

References

S217
The safe ethanol dose: a review of epidemiological data for the last six decades
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Background: Alcohol use as a risk for health enormously contributes to the burden of disease world-wide. According to experts’ estimation approximately 4% of global burden of disease is associated with alcohol misuse. Alcohol is involved in about 40% of motor vehicle accidents, 47-70% of homicides, 25-37% of suicides. Although 1-2 standard drinks per day (with 1-2 free-alcohol days) has been recommended (especially for adults) as a prophylactic measure for ischemic heart disease, there is a paucity of data concerning the dose time dependent effect of alcohol use on psycho-physiological functions. Most of the problems related with alcohol use have been largely pronounced among the young adult population. Since in most cases, the effects of alcohol use are rather than harmful, there is need to determine a long-term “relatively” safe dose of alcoholic beverages.

Materials and methods: Our data (based on the psycho-physiological functions of university students for a 4 years period of study and follow-up), as well as current epidemiological and clinical data on the dose-time response effect of alcohol use for the last six decades were examined. All alcohol doses are given in values of pure ethanol.

Results: There is necessity of normalizing, not only the daily dose of alcoholic drinks, but also the monthly total dose.

Conclusions: We therefore, formulate the concept of relatively safe per session and monthly dose of alcoholic beverages, which must not exceed 27 ml and 40 ml for males respectively and not more than 24 ml and 31 ml respectively for females.

S218
Plasma Brain-Derived-Neurotrophic Factor levels and cognitive function in euthymic bipolar type I patients
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Background: Brain-derived neurotrophic factor (BDNF) is an important contributor to the pathophysiology of bipolar disorder (BD), and abnormalities in the BDNF-signaling system may be implicated in the cognitive decline observed in BD patients. We aimed to investigate serum BDNF levels in BD patients, and its relation with neurocognitive function.

Materials and methods: We measured serum BDNF levels using an enzyme-linked immunosorbent assay method in 65 euthymic type I BD patients and 50 healthy controls, and administered a neuropsychological test battery to assess attention and mental control, perceptual-motor skills, executive functions, verbal fluency and abstraction, visuo-spatial attention, and memory.

Results: We found no significant differences regarding serum BDNF levels in BD patients and healthy controls. We found significant positive associations between serum BDNF levels and illness duration, and manic and depressive episodes in female BD patients only. Serum BDNF levels were lower in patients medicated with antipsychotics and/or lithium, whereas patients on valproate and/or antidepressants showed higher serum BDNF levels. Patients performed significantly worse on 11 out of 16 neurocognitive tests as compared to controls. We found a significant positive association between serum BDNF levels and a test of verbal fluency in both BD patients and controls.

Conclusions: Present results support the hypothesis that BDNF normalizes with mood stabilization and pharmacological treatment. Our findings in young and physically healthy patients, with short illness duration and few mood episodes may explain the lack of association between serum BDNF levels and neurocognitive performance, even though cognitive performance in patients was overall significantly worse as compared to healthy controls.

References
S219
Psychosocial risks for diabetic control of preadolescents and adolescents with Diabetes Mellitus Type I
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Background: The aim of the research is to mark psychosocial risks for diabetic preadolescents and adolescents and healthy control between 11 and 18 years old.

Materials and methods: Examinees completed questionnaires included FACES III, EPQ, Beck Depression Inventory (BDI), SCOFF and Overall Sociodemographic Inventory. Physicians completed patients’ medical history and C-GAS scale of diabetic children. Subjects were asked to identify how they perceived themselves, their affective state, eating, sleeping, sexual behavior, family cohesion and adaptability. Physicians were asked to identify level of psychological, social, and school functioning of preadolescents and adolescents. Diabetic control was determined by measuring glycosylated hemoglobin (GlasBAlc).

Results: Results revealed that patients almost uniformly had very low scores on BDI (p < 0.001), low social skills, and both, patients and parents were in chaotically enmeshed family systems and tend to reach more chaotically enmeshed scores on ideal parent-child relationship (p < 0.0005). Statistically, more patients, had tendency of not using professional and peer group support. Differences are more enhanced with worst diabetic control. Extraverted adolescents had worse diabetic control, and higher scores for eating disorders (p < 0.001).

Conclusions: Perceiving family system as only supportive surrounding, denegation of psychological disturbances, with tendency of not using professional and peer group support and extravert personal traits are significant psychosocial risks for worst diabetic control within preadolescents and adolescents populations.

S220
A model that might better explain the effects of addiction substances on the nervous system: the CoBBGlum model
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Background: The effect of addictive substances on brain’s utilizing mechanisms of glucose for neuronal functions are poorly understood. To identify novel neurobiological mechanisms of addiction (precisely on brain glucose metabolism), we developed a model that incorporates the β-cell and the fishbone models of glucose metabolism and examined the role of various psychostimulants (alcohol, cocaine, heroin) on the functions of the model. The abbreviation “CoBBGlum model” means Convergence (incorporation of the β-cell and the fishbone models) model of Blood-Brain Glucose Metabolism.

Materials and methods: Peer reviewed literatures from Elsevier and Pubmed from the year 1940 to August, 2009 on the effect of various doses of alcohol on the blood glucose level and cognitive functions, including associated theories and hypotheses and models of glucose metabolism were also examined.

Results: The CoBBGlum model is based on the notion that the main regulators (leptin and insulin) of blood-brain glucose metabolism work synergistically, rather than individually. Addictive substances adversely affect the blood-brain glucose transport system both by their stimulating and toxic related action on the control mechanisms of leptin and insulin (by inhibiting its action and/or up and down regulatory mechanisms). The metabolic byproducts, including adducts of alcohol, for example might acquire the properties of transmitter of electrons across mitochondrial membranes. This is the etiopathogenetic basis of most addictive-diseases-associated neurodegenerative disorders. Pathogenic effects on the main glucose regulators might occur independently and/or dependently of each other, but subsequently leading to a total equilibrium disorder of the CoBBGlum model.

Conclusions: Adequate therapies for addictive diseases (that affect the nervous system) lie on the full understanding of the CoBBGlum model, since it serves as a classical tool for explaining the role of addictive substances in the nervous system.

References

S221
Gender specific analysis of alcohol use
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Background: Several studies all round the world have noted specific differences in the pattern of alcohol use among male and female genders [1-3].

Aim: To examine specific gender differences in alcohol use among university students in Minsk, Belarus.

Materials and methods: Over 2000 students at random in four major universities in Minsk, Belarus were explained the study objectives. Approximately 75% of students in these universities are females. Only those who agreed to participate were considered for the study. A total of 465 males (mean age - 21 yrs) and 1030 females (mean age - 20.5 yrs) were administered anonymous AUDIT questionnaire and other alcohol related questions. Data analysis: statistical calculations were performed using SPSS (Statistical Package for the Social Sciences) 16.0 version for Windows; the criteria of Pearson (γ²) and Student’s t-test. The value for significance was as p < 0.05.

Results: Alcohol users were 85.7% males and 88.5% females. Problem drinkers were 33.7% males and 10.1% females. Approximately the same percentages of both males and females use only beer as alcoholic drinks. Significant percentage of males (16.8%) use spirits, wine and beer in their combination, compared to only 5.1% females. Bad mood as a deciding factor for alcohol use was reported by a higher percentage of males (8.1%), compared to the females - 1.9%. Alcohol use for celebrations was higher among the females than in the male population: a female to male ratio of 1.4.

Conclusions: This study reveals that the prevalence of alcohol problems is significantly higher among the males, compared to the females in the general Belarusian students’ population, although no significant differences in the percentages of alcohol users among both genders exist. Differences in the preference for different alcoholic drinks and the causes for alcohol use were noted among the males and females.

References

S222
Interconfessional analysis of use and related problems: the Christians and Muslims
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Background: The confession to which a person has been committed to will likely influence his/her attitude towards alcohol use. Many studies have suggested that the problem of alcohol use between people of different confession, although might differ, the gap is narrowing [1,2]. We therefore
examine the differences in the pattern of alcohol use among people of different confessions - the Christians and Muslims in Minsk, Belarus.

**Materials and methods:** The study was randomized and anonymous. Altogether, 214 (107 Christians and 107 Muslims) people were explained the study aims and objectives. A total 65 Christians and 70 Muslims agreed to participate in the study. All respondents were administered the AUDIT, CAGE and MAST questionnaire. Statistical analysis was performed using SPSS 16.0 version for Windows and the Pearson χ².

**Results:** The present study revealed that no differences in both the number of alcohol users and problem drinkers exist (according to the results of all three screening instruments) among the Christians and Muslims. Alcohol users were 67.69% (n = 44) Christians and 57.14% (n = 40) Muslims. Problem drinkers were 27.69 (n = 18) Christians and Muslims - 34.29% (24).

**Conclusions:** This study is an exceptional case, where for both Christians and Muslims, the percentages (as well as the average scores in the various screening instruments) of alcohol users and problem drinkers were the same on the AUDIT, CAGE and MAST. According to the result of this study, no difference in the pattern of alcohol use exist among people of different confession in Minsk, Belarus

**References**

**S223**

Parkinson disease and Neuroleptic withdrawal
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**Background:** Abrupt cessation of most psychiatric drugs leads to varying withdrawal symptoms. Although Clozapine withdrawal symptoms are well documented, this case presentation addresses issues pertaining to the severity of the withdrawals and the similarities to Neuroleptic Malignant Syndrome (NMS). This patient who was only on 100mg of Clozapine required ventilation in Intensive care unit. Neurologist found no causative factor but treated the patient symptomatically to recovery. Family history however revealed that both the patient’s parents suffered from severe Parkinson disease. This case presentation discusses the association between NMS like symptoms and neuroleptic withdrawal syndrome in patients with a family history of Parkinson disease.

**Materials and methods:** Case study

**Results:** Patient with a strong family history of Parkinson disease are at a greater risk of developing NMS like symptoms when Clozapine is abruptly withdrawn.

**Conclusions:** Clozapine and other medications with strong anticholinergic properties should never be abruptly stopped. This fact should be even more important if a patient has a family history of Parkinson disease.

**S224**

Aripiprazole monotherapy in the treatment of bipolar disorder: a meta-analysis
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**Background:** The current article is a systematic registration and meta-analysis of the available clinical trials concerning the usefulness of aripiprazole in the treatment of bipolar disorder.

**Materials and methods:** A systematic MEDLINE and repositories search concerning clinical trials for aripiprazole in the treatment of bipolar disorder. A systematic MEDLINE and repositories search concerning the usefulness of aripiprazole in the treatment of mood disorders.

**Results:** The pooled effect size for acute mania was equal to 0.34. The NNT was 6 for aripiprazole vs placebo concerning response at week 3 and equal to 14 concerning remission. The average day response started was day 3. The switch rates were peculiarly in favour of haloperidol and against lithium. The suicide rates were negligible for all groups. The meta-analysis for acute bipolar depression suggests a significant difference at week 8 with an effect size 0.17. The maintenance data suggest that the median survival time for the aripiprazole group was not evaluable, while the median survival time for placebo was 118-203 days depending on the clinical subpopulation.

**Conclusions:** The data analysed for the current study support the usefulness of aripiprazole during all phases of bipolar illness, inpite of the rather weak effect on depression and that the efficacy during the maintenance period is proven only against new manic episodes and in patients with an index manic episode who responded to aripiprazole during the acute phase.

**S225**

Treatment of psychotic symptoms in bipolar disorder with aripiprazole monotherapy: a meta-analysis
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*Annals of General Psychiatry* 2010, 9(Suppl 1):S225

**Background:** The current article is a systematic registration and meta-analysis of the available clinical trials concerning the usefulness of aripiprazole in the treatment of the psychotic symptoms in bipolar disorder.

**Materials and methods:** A systematic MEDLINE and repositories search concerning clinical trials for aripiprazole in bipolar disorder.

**Results:** The meta-analysis of 4 RCTs on acute mania suggests that the effect size of aripiprazole vs. placebo was equal to 0.14 but a more reliable and accurate estimation is 0.18 for the total PANSS score. The effect was higher for the PANSS positive subscale (0.28), PANSS hostility subscale (0.24) and PANSS cognitive subscale (0.20), and lower for the PANSS negative (0.12). No data on the depressive phase of bipolar illness exist, while there are some data in favour of aripiprazole concerning the maintenance phase, where at week 26 all except the total PANSS score showed a significant superiority of aripiprazole over placebo (d = 0.28 for positive, d = 0.38 for the cognitive and d = 0.71 for the hostility subscales) and at week 100 the results were similar (d = 0.42, 0.63 and 0.48 respectively).

**Conclusions:** The data analysed for the current study support the usefulness of aripiprazole against psychotic symptoms during the acute manic and maintenance phases of bipolar illness.

**S226**

Disruption of biological rhythms as a core problem and therapeutic target in mood disorders: the emerging concept of “Rhythm-regulators”
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**Background:** Biological rhythms was always considered to be disrupted in depression with the predominant theory being that of hyperarousal. However, recent data suggest that it might be more appropriate to suggest that depressed patients are incapable of achieving and maintaining that particular level of internal homeostasis which permits the organism to function smoothly, to lower enough the level of arousal during sleep, so that quality of sleep is good, and to increase this level enough during the day so as the person can function properly. Therefore the transition from one state to another is somewhat problematic, delayed, incomplete and de-synchronized. Thus agents with a ‘rhythm stabilizing’ effect could be beneficial in the treatment of mood disorders. Such an agent should have a beneficial effect on restoring and stabilizing the rhythm of a physiological function and not pushing it towards a
specific pole, or inducing the opposite pole; it should also allow response to both internal and environmental stimuli and zeitgebers and restore synchronization of the various body rhythms and not inducing or worsening desynchronization. Agomelatine could represent the first of a new class that is ‘rhythm stabilizing antidepressant’ but further research is necessary to support this.

**S227**

**A study of combined drug treatment and prevention of delirium tremens**

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**Background:** The preventive treatment of emergency situations and complications caused by chronic alcoholism presents psychiatrists and physicians with a great challenge. Delirium tremens is a potentially fatal form of alcohol withdrawal (mortality rate 5%-15%) that usually occurs in patients with heavy and chronic alcohol abuse.

**Materials and methods:** Our research took place in a private psychiatric clinic (2005-2009) and focused on the effectiveness of a certain pharmacological combination administered to a sample of 37 patients, in an attempt to control the alcohol withdrawal syndrome. The pharmacological combination comprised 300mg-60mg Chlordiazepoxide hydrochloride, 300mg-500mg Triapride hydrochloride, 300mg-500mg Hydroxyzine hydrochloride, 576mg Clomethiazol, 600mg-1200mg Oxcarbazepine and 81 +82+B12 complex daily. Additionally, the patients received antidepressants and cardiovascular drugs.

**Results:** None of our sample patients developed any delirium tremens symptoms. The average duration of the drug combination administration was 11 days followed by a gradually decreasing dose until the maintenance dosage was reached.

**Conclusions:** When compared to other suggested drug treatments this method proved to be highly effective in delirium tremens prevention.

**S228**

**Testing the pyramidal hypothesis of alcohol use distribution among the Nigerians, Arabs and Slavs in Belarus**

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**Background:** According to the Ledermann Sully (1956) pyramidal hypothesis of alcohol use distribution, the increase in social drinkers in a given society leads to a disproportional increase in percentages of heavy users. In the same way, decrease in the number of social drinkers will have the greatest effect on heavy drinkers. In most western countries, where there are high percentages of heavy drinkers, the pyramid is broad. In Asian countries where there are fewer heavy drinkers the pyramid is a narrow one. The distribution of social drinkers compared to the heavy drinkers might differ among various ethnic groups even within a given country. We therefore, test the Ledermann hypothesis of alcohol use distribution among the Nigerians, Arabians and Slavs in Minsk, Belarus.

**Materials and methods:** The study was randomized and anonymous. Minsk was selected for the study since it inhabits over 22% (people from different parts of the country who have come to live in this city) of the country’s total population. More so, it is the only city with highest number of foreigners (majority which are Nigerians, Arabs). Out of 56 Nigerians, 187 Arabs and 1988 Slavs that were explained the study aims and objectives, a total of 44 Nigerians, 120 Arabs and 1345 Slavs agreed to participate in the study. All respondents were administered questionnaire containing the AUDIT and other alcohol related questions. On the AUDIT, a score of 1-7 defines social alcohol use; 8-19 - heavy alcohol use; 20-40 - alcohol dependence.

**Results:** Social drinkers, heavy drinkers and people with alcohol dependence in the general Belarusian population were: Slavs - 74.8%, 13.8%, 2.5% respectively; Arabs - 29.2%, 20.8%, 10.8% respectively; Nigerians - 30.8%, 11.5%, 3.8% respectively.

**Conclusions:** According to the Ledermann hypothesis, this study shows that, in Belarus, the pattern of alcohol use by Arabs could be denoted with a narrow pyramid (pattern of alcohol use in most Asian countries) and a broad pyramid (pattern of alcohol use in most western countries) for both Slavs and Nigerians.
purpose of this study is to determine the motive of Romand’s following criminal act. In 1993, Romand smashed his wife’s skull and shot his children while asleep. Afterwards, he joined his parents for a meal and shot them both. Later that night, he attacked his ex-mistress, but strangely enough, the few words she uttered, made him apologize and release her. He finally returned to his family home, which still contained the bodies of his dead wife and children, and set it on fire.

Materials and methods: After a bibliographic review of all reliable sources relative to this clinical case, we shall focus on the subversive events preceding the criminal act and examine three key aspects of Romand’s life: 1) his enigmatic relationship with women, and especially with his wife and his mistress 2) the paternal role model he was for the local community, strongly suggesting that Romand assumed the exceptional role of a sacrificial figure 3) the criminal sequence.

Results: Romand’s case extraordinarily contradicts the utilitarian motive allegation.

Conclusions: Romand’s criminal gesture finds its own reason only if examined through the specificity of altruistic homicides. He tragically spared his family circle the shaking encounter with an intimate stranger who chose to invent the life he most certainly could have lived. This study represents a step toward understanding altruistic homicide risk.

S231
The necessity of a structured framework for considering pathological lying in the forensic context
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Background: Although the psychiatric literature reveals no consensus over the concept of pathological lying, it systematically reflects the significance of this concept in forensic psychiatry. A growing number of case reports underline the implications of untruths in a legal context. This study aims to define these implications.

Materials and methods: Our bibliographic review of recent case reports strongly suggests that pathological liars share an extraordinary, yet paradoxical profile: individuals beyond suspicion, prominent men with social status (Judge Couwenberg and Professor Joseph Ellis) and women incarnating the graces of motherhood (later on to be diagnosed with Munchausen by Proxy) seeming particularly genuine and convincing, often driven by their lies to a clash with the judicial system or administrative structures (such as hospitals). This review also traces the historical development of pathological lying and its place in modern-day psychiatry.

Results: Pathological liars progressively merge into an apparent delusional establishment of a fictional self overwhelming the real one, state which is commonly described as a kind of “wish psychosis” in which the mastery of one’s own lies is irremediably lost. Their exterior engagement in criminal behaviour unfaithfully underlines the lack of will in the act of lying as an end in itself.

Conclusions: Modern psychiatry fails to determine to which extent pathological lying reflects impairment in reality testing, therefore cannot define pathological lying as a willful act. Even though pathological lying doesn’t reach the threshold of insanity, it should be better placed in the DSM so that a structured framework in forensic context could be established in the future.

S232
Cannabinoids in the treatment of pain
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Background: Cannabinoids and the endo-cannabinoid system play an important role in the sensation of pain. As conventional analgesics are often associated with serious side-effects, cannabinoids and agonists of their receptors offer a useful alternative or coanalgesic in the treatment of pain. The aim of this work is to summarize the role of cannabinoids and their receptors in nociception and pain treatment.

Materials and methods: Two main types of receptors for cannabinoids and endo-cannabinoids are implicated in nociception: the metabotropic cannabinoid receptors (mainly CB1 and CB2) and the ionotropic transient receptor potential channels TRP, which include the vanilloid receptors TRPV1, TRPV2, TRPV4 as well as TRPM8 and TRPA1.

Results: Antinociception related to CB1 receptor activation may be due to inhibition of GABA release in the brain, suppression of glutamate release in the spinal cord or due to induction of dopamine, noradrenaline and opioid peptide release. CB2 receptors are most likely implicated in antinociception of tonic inflammatory pain. Cannabinoid activation of TRP channels can result in desensitization of the TRPA1 and TRPV1 channel activities, inhibition of nociceptors, and antihyperalgesia and antinociception in certain pain models. There is also evidence for cooperation between metabotropic cannabinoid receptors and ionotropic TRP channels in nociceptive neurons.

Conclusions: Cannabinoids seem to be effective against neuropathic pain, inflammatory pain, post-operative pain and cancer pain. Their use as analogues or coanalgesics may offer a useful alternative option for pain management in clinical practice.
**S234**

Pathopsychophysiological mechanism of low academic performance among drinkers

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**Background:** How alcohol use affect academic performance of students is not fully understood. It was recently shown that alcohol use reduces academic performance of university students by 6.6-12.1% [1]. But, in spite of the enormous epidemiological data regarding students’ problem drinking, the fact that alcohol use leads to a decrease in academic performance remains disputable. This study considers several data that have helped us unravel this disbelief.

**Materials and methods:** Peer reviewed publications from Elsevier, Medline and African Index Medicus from 1930 to June 30th, 2009 on the effect of alcohol use on academic performance, cognitive functions and metabolism were critically analyzed. Our data (based on the psychophysiological functions of university students for a three years period of study and follow-up) were examined. We produced a system of academic performance: the psychophysiological concept of academic performance, where the major components - motivational and demotivational factors are located in a center of cognition and metabolic balance.

**Results:** Distortion of the major elements of the system of academic performance like cognition and a negative shift in metabolic balance can result in low academic performance. A metabolic shift in important substrates (like glucose) for brain functions affects the equilibrium state of this system. This is because cognitive functions are dependent on the blood-brain glucose control systems [2-4]. Alcohol use can affect the metabolic equilibrium state of the system in a drinker, subsequently leading to a distortion of cognition (a central component of the system). This distortion however, can be modulated by motivational or demotivational factors. The strength of the modulating factors (genetic, metabolic counter-regulatory systems, environmental factors) determines the level of academic performance.

**Conclusions:** This study solves the question: If alcohol use leads to low academic performance; can’t poor academic performance result in alcohol use? A full understanding of the effect of alcohol use on academic performance lies on the psycho-physiological system of academic performance.

**References**


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**S236**

Brief review of situation of social psychiatry in Armenia

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History is stating that first services ever created in Armenia were started in XI century in the island of Lake Sevan. As part of the Church offered services they created special homes for disabled people with mentally disturbed persons included.

During the Soviet area psychiatric condition was considered as a stigma among general population and treatment was mainly based on biological approaches without taking into account social-psychological aspects. Although some elements of social psychiatry were in use such as: occupational and art therapy approaches, but this methods were not aiming to the social integration of the mentally ill patients. During the transitional period psychiatry together with general health system was in crisis due to lack of financial and organizational management. After the war in Nagorno Karabagh some 300.000 refugees were dislocated from Azerbaijan to Armenia, which even stressed the difficulties of Mental Health Care situation in Armenia.

Only with the initiative of Nongovernmental organizations day centres and social psychiatric services were did their first steps since 1997. As we know, after sponsorship finished, most of them ended their missions, without governmental support. Lots of projects were implemented with the key elements of Social psychiatry having in their target mostly refugee population. Main partner organizations were internationally recognized once: UN, MSF, NRC, Save the children etc...

Currently only 3% of health care expenditures provided by the government health department is devoted to mental health. As a result of centralized mental health services system, the large proportion (88%) of all the expenditures spent on mental health are devoted to mental hospitals. The essential psychotropic medicines are accessible for 100% of patients who are registered. All the severe and some mild mental disorders are covered in social insurance schemes and patients get not only free of charge treatment, but also those who are recognized to have chronic disorders get financial support from the government as disability pension.

What we have today is the following: 4 day centres in Yerevan, one in Syunik and 2 in Gegharkunik regions, and they are covering only 3-5% of...
general need. All mentioned services are supported by the Ministry of Health of RA and some sponsors from outside of country. Issues which are disturbing development of Social Psychiatry are classified to: lack of sources, mismanagement of existing capacities, stigmatization and stereotypes.

Our aim is to enforce and develop outpatient care via training of professionals, public education, creation of community based services and restructuring of financial sources from in-patient care to the outpatient.

References

It is essential that research is carried out on all aspects related to the improvement of care of migrants, from pharmacological intervention to psychotherapy to the participation of intercultural mediators and medical interpreters. In addition, research needs to examine institutional and administrative characteristics to determine what maximizes access and quality of care. All of this is necessary to improve the overall cultural competence of the mental health care system. One of the big questions facing researchers has to do with the degree to which immigration in and of itself constitutes a risk factor for common mental disorders, on the one hand, and what best explains the relationship between immigration and schizophrenia [4]. In addition to requiring further exploration, these areas of research all thematize the complexity of applying research methodology and instrumentation developed in one particular cultural, social, and political context in another. Psychometrics are clearly influenced by cultural differences, to the extent that leading experts agree that there is no such thing as a “culture free” or even “culture fair” test [8]. This means that how research is carried out needs to be rethought, with, perhaps, more emphasis given to qualitative approaches.

The area of prevention also warrants attention. Clearly, the optimal way of improving the mental health of a population is to prevent mental health problems and promote mental health. How to do this, however, contrasts with a better understanding of the risk and protective factors related to the migratory process. Research in this area is growing and needs to be further developed and then made relevant to mental health promotion and prevention and treatment on psychopathology.

Training and education: In today’s increasingly diverse world, it is arguable that culture and difference play a role in most every sort of patient contact. To that end, it is, in our opinion, an ethical requirement that all mental health professionals receive training in cultural competence. The very notion of professional competence is predicated on a combination of practical experience along with theory and research [9]. Whereas many clinicians have ample experience working with migrants, they all too often lack a scientific basis on which to frame and develop their work.

Training should be focused on promotion of mental health, prevention of psychopathology, and diagnosis and treatment, and should be provided not only to clinicians but also to administrators, researchers, as well as all clinical staff.

We need to have a better understanding of the effectiveness of training. Many models exist; however, there exists minimal research that evaluates the clinical impact. We need to know what sorts of training initiatives have a real world impact on the sort of care imparted by trainees.

Advocacy: As things stand, it is clear that migrants are not having their best interests attended to. It is essential that those with the means to do so advocate on behalf of this more vulnerable population ranging from advocacy at the community to that of the individual level.

In a related vein, we call upon national and international associations to organize or promote sections or special interest groups related to migration and mental health/transcultural psychiatry as a means of identifying and needs and developing appropriate responses. Such special interest groups can then network in order to further share ideas, experiences, and research findings, with an eye to improving the mental health of migrants.

The Euromed Network on Migration and Mental Health: One of the central objectives of the Euromed Network on Migration and Mental Health is the development of a forum in which local and relevant research, experiences, and initiatives can be shared, compared, and contrasted with the objective of contributing to an overall improvement in the mental health of migrants.