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ABSTRACTS LEAFLET

CU 01. CLINICAL UPDATE 1

Are antidepressants effective in depression in schizophrenia or Alzheimer's?

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Depressive symptoms in the context of schizophrenia a very frequent, not all of them result in a full depressive syndrome. In case of a full depressive syndrome at first potential reasons for a depression or pseudo-depression should be searched for, e.g. a parkinsonian syndrome due to neuroleptic treatment. To avoid parkinsonian side effects a SGA with favourable EPS profile should be preferred to treat the psychosis. In addition at least some of the SGAs haven demonstrated efficacy in depressive symptoms in the context of schizophrenic episodes, like e.g. Olanzapine, Aripiprazol, Quetiapine. If the treatment with such an antipsychotic is un-sufficient, an antidepressant should be added as co-medication, although the evidence for this co-medication is not the strongest. To avoid an induction of psychotic symptoms the antidepressants should not be given as monotherapy.

Depressive symptoms in the context of dementia are very common. Very often they even proceed the cognitive decline . There are not so many studies how to deal with this. A Cholinesterase inhibitors, beside their positive effects on cognition, can also have a beneficial effect on depressive symptoms in the context of dementia. Antidepressants as monotherapy or add on treatment to antidementia medication is clinical practice, however, in terms of evidence more data are demanded.

LECTURE

Prevalence and current practice in treatment of depression in Czech Republic

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Affective disorders represent a considerable economical, health and social burden for society of the 21th. century. Prevalence of depression has increased in last decades. About 7 % of Czech population reports significant depressive symptoms during last 6 months. Number of patients treated for depression in psychiatric out-patient departments as well consumption of antidepressants, of which sertraline, escitalopram and citalopram are most frequently used, increased in recent 15 years three-fold. Most antidepressants are prescribed by general practitioners. Both Czech Psychiatric Association as well as Society of General Practitioners published since 1999 practice guidelines for treatment of depression, which were several times revised according to the evidence-based approach. Treatment of patients with depression should be complex and recommendations regarding psychotherapy, pharmacotherapy, other biological therapies (e.g. ECT, rTMS, phototherapy) were published. Treatment costs are mostly covered by the general health insurance, which is obligatory in the Czech Republic. Life style, which is not optimal in the Czech Republic, should be part of treatment programs including physical activity and dietary pattern. Preventive programs should be started and supported.

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CU 04. CLINICAL UPDATE 4

Advances in Treatment For OCD and Related Disorders.

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OCD, as encountered in the psychiatry clinic, tends to pursue a chronic relapsing course. First-line treatment with cognitive behaviour therapy (CBT) or selective serotonin reuptake inhibitor (SSRI) usually produces a partial response. For SSRI-responders, continued treatment protects against relapse. However, more effective treatment strategies are sought. Evidence suggests that combining SSRI with CBT or with adjunctive antipsychotic, or increasing the dose of SSRI, represent effective options for SSRI-resistant disorder. Novel pharmacological compounds are also under investigation, including drugs acting to modulate glutamate neurotransmission. Cognitive remediation therapy may improve cognitive flexibility and enhance treatment-outcomes. Highly Specialized Services are helpful for the most severe and enduring cases. For these individuals, experimental somatic treatments involving neuro-modulation or ablative neurosurgery may also be considered. Treatments and services will be discussed.

CU 05. CLINICAL UPDATE 5

Treating comorbid alcohol abuse and depression

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Depression and anxiety are the most common coexisting conditions in patients with alcohol use disorders, and alcohol use disorders are frequently not recognised in patients with affective disorders. The comorbid disorder may be pivotal in motivating someone to seek treatment, so comorbidity prevalence rates are higher in clinical than community samples. Unless there is a clear history of recurrence of a long-standing affective disorder predating alcohol use problems it is hard to establish whether an affective disorder is primary or secondary in patients with comorbid conditions. It should be remembered that the comorbidity of depression and alcohol use disorders may be an indicator of an underlying anxiety disorder or the presence of bipolar disorder. There have been relatively few randomised controlled trials specifically targeted at patients with comorbid disorders. Systematic reviews which have examined the treatment of depression in patients with alcohol and other drug use disorders suggest greater antidepressant efficacy is associated with greater benefit on reducing alcohol consumption (Nunes and Levin, 2004), although placebo response rates are higher in patients with comorbid conditions (Iovieno et al., 2011). Combining cognitive behavioural therapy with motivational interviewing may be preferable to 'treatment as usual' (Riper et al., 2014). This presentation will summarise current evidence and conclude with reviewing recommendations for managing comorbid patients in clinical practice.

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Clinical update on the pharmacological management of alcohol use disorders

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Alcohol Use Disorders (AUDs) cause significant morbidity and mortality worldwide, but pharmacological treatments for them are underused, despite evidence of efficacy. Acamprosate, naltrexone, nalmefene and disulfiram are all approved in one or more world region for the treatment of alcohol use disorders. Baclofen currently has a temporary indication in France, and there is increasing evidence base for the use of topiramate.

Pharmacological agents have a potential role in the initiation or continuation of abstinence, as well as reduction of drinking, and need to be part of an overall coherent management plan which takes into account objectives of treatment, individual patient preferences and the risk benefit profile of each of these decisions.

Safety considerations for using psychopharmacological treatments in this patient group include the impact of concurrent alcohol consumption at high levels, multiple physical comorbidities which may interfere with pharmacological effects, distribution and metabolism, and concomitant medications for the treatment of comorbid physical and psychiatric conditions.

CU 06. CLINICAL UPDATE 6

UPDATE ON TREATING-RESISTANT BIPOLAR DEPRESSION

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Clinicians have few evidence-based options for the management of bipolar depression and even fewer for treatment-resistant bipolar depression (TRBD). To date, relatively few studies have examined the next-step treatment strategies for TRBD and no clear guidelines or unequivocal algorithms exist in order to inform clinicians on what to do when the first approved therapies fail. Although research on optimal treatments for bipolar depression has been increasing, a lack of a sufficient database and disagreements about the classic treatment of bipolar depression have precluded a consensual treatment algorithm for treatment-resistant bipolar depression, and well-designed studies on TRBD still lack (Vieta & Colom, 2010). Until recently, the algorithms for TRBD were undistinguishable from TRD's, despite the absence of good evidence supporting the use of antidepressants in patients with bipolar disorder. In 2009, Pacchiarotti et al proposed a new definition for TRBD (Pacchiarotti et al, 2009). As a general rule, the management of TRBD includes the same operational steps as in unipolar TRD, but with totally different treatment options. Strategies include optimization of the dosage of the current drug, combination or augmentation and switch strategies, and alternatives such as ketamine or ECT (3). However, the definition of TRBD is not based on lack of response to antidepressant, but to drugs such as quetiapine, lithium, and lamotrigine. This lecture will provide a challenging overview of the current state-of-the art in the management of TRBD and future developments.

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SO 01. INTERNATIONAL SOCIETY FOR AFFECTIVE DISORDERS (ISAD) SYMPOSIUM

Brain catecholamines and reward processing in major depression

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Impaired function in the processing of reward-related stimuli may constitute a key behavioral endophenotype in major depressive disorder (MDD). An instructive paradigm for investigating the relationship between catecholaminergic function and the risk of depression has involved the behavioral and neuronal responses to catecholamine depletion, achieved by oral administration of alpha-methyl-paratyrosine, a competitive inhibitor of tyrosine hydroxylase. Using this experimental paradigm, we have shown that catecholamine deficiency is associated with specific depressive symptoms that are related to the brain reward system: anhedonia, lassitude and concentration difficulties (in contrast, we have associated serotonin deficiency with emotional symptoms such as sadness, depressed mood and hopelessness). Using psychological experiments, we have demonstrated that catecholamine-dependent MDD symptoms are related to dysfunctions of the brain's valuation network, particularly to disturbed cost-benefit calculations and impaired reward learning. Using endocrinological assays, we have shown that ghrelin and growth hormone play roles in the interaction between catecholamines, reward dysfunction and MDD.

Forging a New Path: Innovative Treatments for Unmet Needs in Depression

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While the psychopharmacological revolution has transformed the treatment of depression and countless lives have been improved as a result, clinicians are acutely aware that the results for our patients are far from perfect or complete. Within the last decade many naturalistic effectiveness trials have shown that currently available treatment modalities that target primarily monoamine neurotransmission fall short of achieving remission for up to 40% of patients.
Moreover, many unmet needs exist in depression such as disruptions in immuno-inflammatory networks, oxidative stress, circadian dysregulation and cognitive deficits. In this presentation we will explore new biological paradigms in understanding depression which may, in fact, represent avenues for the development of novel treatments. We will review the emerging literature these revised biological views of depression and propose a new conceptual framework beyond Engel's Bio-Psycho-Social model and more in keeping with the discoveries and realities of 21st century.

Vulnerability for recurrence in MDD.
Mechanisms, underlying brain dysfunction and potential targets for prevention

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Introduction: One of the most invalidating aspects of Major depressive Disorder (MDD) is its recurrent nature. In more selected populations recurrence rate within 5 years is up to 80% and every new episode has the risk of becoming chronic or treatment resistant.
Beck's cognitive theory provides an important explanation for recurrence of MDD, which was extended further. Segal showed that cognitive reactivity (representing the level of dysfunctional thoughts that become present when in a dysphoric state) is an important risk factor in addition to residual symptoms and number of previous episodes. However, in addition dysfunctions in attention (negative biases) and cognitive control (e.g. over rumination) and aberrant default mode network (DMN) activity/connectivity have been proposed as psycho-neurobiological underpinnings of recurrence.
Aim: The present talk will summarize these mechanisms. New data from a cohort of recurrent MDD-patients will be presented.
Methods: The DELTA Neuroimaging cohort consists of 69 drug-free remitted MDD-patients who had ≥2 previous episodes of MDD (and therefore are at increased risk of recurrence) and 44 healthy controls. Measurements included cognitive reactivity, 'hot' neurocognitive tasks (emotional face and word recognition and emotional recall), and extensive functional MRI-neuroimaging with amongst others a resting-state fMRI scan after a neutral and sad mood-induction. Moreover, at baseline, we collected ecological momentary assessment (EMA)), measuring the affective state of participants at 10 times per day during 6 consecutive days.
Results: The neuropsychological test show persistent negative attentional biases despite functional recovery and euthymia in MDD-patients. Furthermore changes in resting state brain connectivity after a mood induction become apparent when contrasting the remitted patients with recurrent MDD versus controls. Finally we found differences in experienced positive and negative affect (EMA-measurements) and associated these with aberrant resting-state comparisons regarding the connectivity.
Conclusion: Even when patients with recurrent MDD are in remission a remaining vulnerability for recurrence persists. This can be quantified and fits in a theoretical framework. These measures and the better understanding of the underlying mechanisms provide opportunities for better prevention of recurrence of MDD.

SS 01. SCIENTIFIC SESSION 1

Concomitant antidepressant and antipsychotic medication in schizophrenia and depression. Rôle of prefrontal glutamatergic mechanisms.

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Clozapine and add-on antidepressant drugs (ADs) to other antipsychotic drugs (APDs) may improve positive, negative and cognitive symptoms and markedly reduce suicide in schizophrenia. Moreover, co-medication with low doses of atypical APDs may augment and hasten the onset of clinical response to AD in treatment-resistant major depression (TRD), even in elderly patients as recently shown.
We have in rats analyzed the underlying neurobiological mechanisms for these clinical results, focusing on monoaminergic and glutamatergic systems in the medial prefrontal cortex (mPFC) using electrophysiological intracellular recording in pyramidal cells in a slice preparation to assess NMDA-R function, microdialysis to assess regional monoamine efflux in brain, and behavioral methods, i.e. the conditioned avoidance response (CAR) test for antipsychotic activity, the 8-arm radial maze for working memory (WM) and a catalepsy test for extrapyramidal side effects (EPS).
Compared with typical D2 antagonists, both clozapine and combinations of other APDs and ADs, e.g. potent alpha2-R antagonists and NET inhibitors, effectively suppressed CAR at reduced D2 occupancy levels with no significant catalepsy, selectively enhanced mPFC DA outflow and, via D1-R activation, facilitated prefrontal NMDA-R mediated transmission. These drug combinations also reversed the WM impairment induced by the selective NMDA-R antagonist MK-801. Moreover, add-on administration of low, clinically relevant nanomolar concentrations of APDs to SSRIs also facilitated AMPA-R induced responses in mPFC pyramidal cells, an effect not attainable by each drug alone, and was blocked by a selective D1-R antagonist. Analogous effects on both AMPA-and NMDA responses in the mPFC were generated by a low dose of ketamine 24h after administration.
Our results propose that facilitation of prefrontal monoaminergic and NMDA-R mediated glutamatergic transmission may be causally related to the beneficial effects of combined treatment with ADs and APDs in schizophrenia and that activation of AMPA-R may be critical for the APD augmentation of ADs in TRD, just as for the potent and rapid antidepressant effect of low doses of ketamine.

Mood food: Gut issues in depression and anxiety

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Evidence is accumulating to suggest that gut microbes may be involved in neural development and function, both peripherally in the enteric nervous system and centrally in the brain. There is an increasing and intense current interest in the role that gut bacteria play in maintaining the health of the host. Altogether the mass of intestinal bacteria represents a virtual inner organ with 100 times the total genetic material contained in all the cells in the human body. However, a disordered balance amongst gut microbes is now thought to be an associated or even causal factor for many chronic medical conditions as varied as obesity and inflammatory bowel diseases. While evidence is still limited in psychiatric illnesses, there are rapidly coalescing clusters of evidence which point to the possibility that variations in the composition of gut microbes may be associated with changes in the normal functioning of the nervous system. Studies in germ-free animals indicate aberrant development of the brain monoaminergic system together with memory deficits and autistic patterns of behaviour. These deficits can be partially normalised if there is early gut colonisation.

Metchnikoff was the first to observe the fact that those living in a region of Bulgaria who consumed fermented food in their diet tended to live longer. He first published his observations in 1908 and this gave rise to the concept of a probiotic or bacteria with a health benefit. That bacteria might have a positive mental health benefit is now becoming clear. Such bacteria may influence the capacity to deal with stress, reducing anxiety, perhaps positively impacting on mood and are now called psychobiotics. Whether, they are capable of acting like and in some circumstances replacing antidepressants remains to be seen. At a time when antidepressant prescribing has reached exceedingly high levels, the emergence of effective natural alternatives with less side-effects would be welcome. It will be intriguing to investigate if psychobiotics will be beneficial in other psychiatric domains. Indeed, very recently a Bacteroides fragilis given early in life was shown to correct some of the behavioural and gastrointestinal deficits in a mouse model of autism induced by maternal infection.

The mechanisms of psychobiotic action are gradually being unravelled. It has been show that Lacobacillus rhamnosus has potent anti-anxiety effects in animals and does so by producing major changes in the expression of GABA receptors in the brain. GABA is the most important inhibitory transmitter in the human brain and these are the receptors through which benzodiazepines such as diazepam and various anaesthetic agents act. The changes in these receptors are mediated by the vagus nerve which connects the brain and gut. When this nerve is severed no effect on anxiety or on GABA receptors is seen following psychobiotic treatment. An impact on obsessive compulsive disorder type symptoms has also been reported with a similar strain of psychobiotic. Interestingly, Lacobacillus rhamnosus not only alters GABA receptors in the brain but has been shown to synthesise and release GABA. There is also evidence to support the view that gut bacteria may influence the brain in routes other than the vagus nerve, for example by immune modulation and by the manufacture of short chain fatty acids.

Communication between the brain and gut is bidirectional and complex. Increased understanding of this axis and the role of the gut microbiota may aid the development of therapies not just for functional bowel disorders but for mood disorders also.

CU 07. CLINICAL UPDATE 7

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In recent years, debaters arguing that selective serotonin reuptake inhibitors (SSRIs) and other potential antidepressants exert no specific pharmacological antidepressant effect have gained marked attention in scientific journals and lay media. In support for the questioning of these drugs, three different arguments have been put forward. First, it has been pointed out that 50% of the trials conducted by the drug companies in order to confirm the efficacy of the SSRIs have failed to demonstrate a significant difference between active drug and placebo. Second, it has been claimed that the antidepressant effect is not characterized by a dose response relationship (which would have been expected if it were a true pharmacological effect). And third, it has been argued that the effect size for the antidepressant effect obtained when lumping both positive and negative trials together in meta-analyses is too low to be clinically meaningful. To shed further light in these issues, we have conducted post hoc analyses of patient level data from all relevant drug-company-sponsored trials in which citalopram, paroxetine or sertraline have been compared with placebo in adult depression. The results suggest i) that almost no comparisons fail to detect a superiority of the active drug over placebo provided that the effect is assessed using a more sensitive measure than the sum score on the Hamilton depression rating scale, ii) that the antidepressant effect of the SSRIs, in contrast to what has been claimed, is indeed characterized by a dose response relationship, and iii) that the effect size for optimal doses of SSRIs, if assessed using a sensitive effect measure and modern statistics, is well on par with that for many well-established treatments for somatic disorders. These results will be presented, as well as preliminary data indicating that the antidepressant effect may not, as has been suggested, be explained by side effects augmenting a placebo response. It will be concluded that the questioning of antidepressants exerting a specific, pharmacological effect in depression is ill-founded.

SO 02 SYMPOSIUM 2

Improving response in treatment resistant depression (TRD)

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To improve response rates to treatment with antidepressants it is important to be more careful in making the correct diagnosis. Care should be taken to exclude those who do not benefit from antidepressants compared to placebo, eg. recent mild depression, bipolar depression and recurrent brief depression.

In first line treatment we should prioritise safe, well tolerated antidepressants which have been shown to be superior to other antidepressants in good head to head studies. Escitalopram is the leading example. Venlafaxine is not. We should take the symptoms into account, especially sleep disturbance which is increased by most SSRIs and SNRIs.

In non-responders or TRD raising the dose is unhelpful since this is contradicted by the evidence and delays effective treatment.

Changing class of antidepressants has also not been shown to help. In each class of antidepressants some are superior in efficacy and almost all are not. Prescribing by class is archaic and should be abandoned. We should know the evidence for superiority and side effects for each individual antidepressant and ignore the class which provides no guidance to response. In TRD one should always check on compliance and consider, metaboliser and thyroid status and folate levels. We should consider early augmentation with quetiapine, aripiprazole or cariprazine, which has good efficacy data rather than lithium or T3 which have weak data. Adding another antidepressant on top of the original increases side effects and interactions with no perceptible benefit except possibly for mirtazapine. Adding CBT is suspect because of the poor biased evidence from open uncontrolled studies. Augmentation with glutaminergic agents seem promising for very early 24 hour onset of response but these compounds are still experimental and have serious safety concerns.

The meta-analysys of lifetime comorbidity: bipolr and anxiety disorder

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Bipolar affective disorders are among the most disabling psychiatric conditions with relatively high rates of morbidity and mortality. A substantial proportion of patients with these conditions also suffer from other co-existing psychiatric disorders, particularly anxiety disorders, which may adversely affect their overall outcome and prognosis. Previous studies have indicated the presence of a high level of heterogeneity regarding the prevalence of comorbidity. This presentation highlights the main findings of a meta-analysis study of the lifetime prevalence of comorbidity between bipolar affective disorders and anxiety disorders.

Highlights

- There is a high comorbidity between bipolar disorder and anxiety disorders.
- Panic disorder is the most common comorbid anxiety disorder in bipolar disorder.
- The presence of comorbid anxiety disorders may adversely affect the overall outcome in bipolar disorder.

P.01 Alzheimer's disease: some data of clinical feature and Depression

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Alzheimer's disease (AD) is the most common cause of dementia among older people. The problem of a combination of depression and dementia is relevant due to the high frequency of this comorbidity and background diagnostic and therapeutic difficulties.
The goal of this trial is to study the structure of psychopathology of depression in patients with AD.
Objective. Diagnosis of AD was based on criteria according to which "late-onset" AD and "early-onset" AD were determined. The presence and severity of depressive symptoms was confirmed by the assessment of mental status of patients, and rated on the HAM - HDRS-17.
Results. In our study symptoms of depression symptoms occurred in a third of all patients. Symptoms of depression were present in AD patients at different stages of the disease. At the time of the survey most patients corresponded to Mild AD and Moderate AD. Depression symptoms in patients with early-onset AD were more common at the stage of mild AD, and in late-onset AD - at the stage of mild AD. At the stage of severe AD depression symptoms occurred less often and were represented by only 3 types: anxiety, apathetic depression and depression with delusions, with a predominance of apathetic depression. Anxious depression was the most common type in early-onset and late-onset AD. Depression with hypochondriac delusions was most often detected in patients with late-onset AD and apathetic and melancholy depression observed in patients with early-onset AD.
Conclusions. Study of depressive symptoms in AD is of interest as a model of the interaction between dementia due to AD, and depressive disorders, both in terms of influence on the development of dementia, depression, and in the aspect of interaction between depression and the neurodegenerative process.

P.02 Frequency of benzodiazepines use and dependence in psychiatry outpatients

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Benzodiazepines which are commonly prescribed to alleviate anxiety or treat insomnia have wide use in psychiatry. One of the major side effects of these medications is dependence. Because of withdrawal syndrome, patients have problems with stopping these medications. The aim of this study is to investigate the frequency of benzodiazepine use and dependence, patterns of use and demographic features of outpatients of a psychiatry centre. 524 consecutive psychiatric outpatients were selected and completed the Benzodiazepine Dependence Self-report Questionnaire. 77/1% of the patients reported previous history of benzodiazepine use. 356 were female and 168 were male. 53.8% reported dependence which was higher in men aged between 20-39 years and non-educated. Clonazepam was the most widely used drug and the majority of the dependent patients reported more than 6 months' drug use**.** Because of high dependency on benzodiazepines and resulting adverse side effects, reconsideration of the prescribed drugs, education of the patients, restriction of drug use and replacement with other medications with less side effects, are considered
necessary.

KEY WORDS
Benzodiazepines, dependency, pattern of use, withdrawal symptoms, psychiatric outpatiens.

P.03 war and Anxiety: Cross Cultural and Gender Study

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Introduction: This study compares the levels of anxiety among Kuwaiti and Iraqi females and males. Kuwaiti and Iraqi share various similarities in terms of, for example, culture, religion, language etc. However, for the past twelve years Iraqis have been living in conditions of war and they have been suffering from various problems t caused or exacerbated by war, poverty, failed institutions, social disintegration, to name a few. In contrast, Kuwaitis were not directly exposed to such experiences.
Objectives: to examine the relationship between culture, gender and anxiety.
Methods: Kuwait University Anxiety Scale (KUAS) was administered to undergraduates from Kuwait and Iraq, (511 Kuwaiti & 726 Iraqi), (618 males & 619 females). The mean age of the sample was 20.81±1.80.
Results: Reliabilities ranged from .80 to .89 for the KUAS, denoting good internal consistency. Females had significantly higher scores in Anxiety than males (f=45.25, p, <001), Iraqis higher than Kuwaitis (25.9, p, <.001). This indicates that culture and gender play an important role in people's self report of anxiety.
Discussion: These results can be interpreted in various ways, on the one hand the Iraqi sample showed higher levels of anxiety in comparison to the Kuwaiti sample. Moreover, females in both countries showed higher levels of anxiety and depression than males. On the other hand, the results indicate that the majority of the Iraqi sample, despite being in war, do not present above normal levels of anxiety. This indicates that the majority of people who live in volatile situations may find a way to preserve their psychological stability.

P.04 Anxiety and depression in elective and emergency surgeries

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Background and Objectives: Patients who undergo surgery experience psychological distress. The objective of this study was to compare post operative anxiety and depression after elective operations with emergency ones in adult hospitalized patients in surgical wards of Fasa University Hospitals in year 2014.
Materials and Methods: The study was designed as a cross sectional study. A validated measurement tool, the Hospital Anxiety and Depression Scale (HADS) (the questionnaire of caseness), was used in this study was. Data collection was carried out in Valie Asr hospital in Fasa.
Results: The prevalence of anxiety and depression was greater in patients scheduled for elective surgery than the patients undergoing emergency operation.
The duration of hospitalization in patients scheduled for elective surgery was 3.66 days in comparison 3.33 days for emergency surgery (p-value=0.001).
In elective surgery group 90(68.2%) were cases of anxiety and in the emergency surgery 56 (42.4%) were cases of anxiety(p <0.001).
In the elective surgery group 104 (78.8%) were cases of depression and in the emergency surgery group 61 (46.2%) were cases of anxiety(p-value <0.001). Also there was significant association between type of operation (elective, emergency) and anxiety and depression of patients. There was a significant association between type of anxiety and depression and duration of hospitalization.

Discussion and conclusion: Prevalence of anxiety and depression and duration of hospitalization in patients undergoing elective surgery is more than in emergency surgery cases. The high levels of anxiety and depression detected in this sample suggest that screening for psychological co-morbidity is important in rehabilitation settings and should be included in the clinical interview carried out by the nurse during admission to the ward.

P.05 Implementing the safewards model into a new acute psychiatric ward

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Background: An acute psychiatric ward focused in treating severe bipolar disorders and depressions with psychotic symptoms was set up in January 2015 in Helsinki University Hospital in Finland. Personnel decided to implement the Safewards model into the nursing process.
Objectives: Aim was to increase safety by decreasing the amount of rates of violence, self-harm, absconding and other incidents threatening patients and personnel.
Methods: The interventions were chosen and put into practice immediately after the nurses´ research club meetings which were organized regularly.
Results: Clear mutual expectations were clarified three times a week in communal meetings, in which the written notes of the wishes and concerns of the patients were also discussed. Mutual expectations are in the patients´ rooms and in the ward as laminated pictorial posters.
Positive words were decided to be mentioned about each patient at the handover. Potential psychological explanations were offered when it occurred that positive words were difficult to offer.
A box of calm down equipment (stress balls, a colouring book, relaxing music i.e.) was assembled.
Patients were asked to write encouraging discharge messages into the folder to everyone to be seen and to be presented in communal meetings.
The feedback from the patients concerning mutual expectations has been positive. The patients are much better informed about common issues and have been able to involve in the decision-making. Nurses thought that the communal meetings have strengthened common functions and created structure to the ward.
Implementing positive words has caused complex feelings and thoughts. This intervention has required a lot of motivation and different approaches.
Calm down methods and discharge messages have been found to be patient centered and easy to be implemented.
Conclusions: The nurses´ research clubs have turned out to be practical and have supported nurses to be committed to the new model. Implementing the Safewards model into a new acute psychiatric ward has increased different perspectives, quality and depth into the nursing process.

P.06 Effects of Psychotropic Drugs on Hippocampal Levels of Inflammatory Mediators in Lipopolysaccharide-treated Rats

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Background: Alterations in hippocampal function lead to memory and spatial navigation problems and are associated with mental and neurodegenerative disorders. Accumulating evidence suggests that inflammation plays a role in the pathogenesis of mental disorders, and that psychotropic drugs exert potent anti-inflammatory properties. Nuclear factor kappa B (NF-kB) is a transcription factor that plays a key role in the regulation of various inflammatory responses. Translocation to the nucleus of p65 (a NF-kB member protein) is associated with over-production of inflammatory mediators.
Objective: This study was undertaken to examine the effects of different psychotropic drugs on levels of prostaglandin (PG) E_2, tumor necrosis factor (TNF)-alpha and nuclear phospho-p65 in hippocampus of lipopolysaccharide (LPS)-treated rats.
Methods: Rats were treated with lithium (100 mg/kg), carbamazepine (40 mg/kg), haloperidol (2 mg/kg), olanzapine (10 mg/kg) or imipramine (20 mg/kg) for 29 days by a single daily intraperitonteal injection. On day 29, at 2 hours post drug treatment rats were injected with saline or LPS (1 mg/kg). At ~ 1.5 hour post LPS injection rats were sacrificed; their hippocampus was excised, homogenized and centrifuged. Supernatants were separated for measurement of PGE_2 and TNF-alpha. Pellets were further processed for determination of nuclear phospho-p65. Phospho-p65, PGE_2 and TNF-alpha levels were measured by specific ELISA kits.
Results and Discussion: LPS treatment did not significantly alter PGE_2 and TNF-alpha levels in the hippocampus. In contrast, LPS significantly increased nuclear phospho-p65 levels. Mostly, chronic pretreatment with haloperidol, olanzapine and imipramine significantly decreased phospho-p65, PGE_2 and TNF-alpha levels in the hippocampus. On the other hand, lithium significantly increased the levels of those inflammatory mediators, whereas carbamazepine did not have a significant effect. These results suggest that psychotropic drugs exhibit different effects on brain inflammation. Nonetheless, some drugs share common effects on inflammatory mediators' production. The effects of the drugs on brain inflammation may contribute to their therapeutic mechanisms but also to their toxicological profile.

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P.07 The use of electroconvulsive therapy in therapeutically resistant schizophrenia in Saratov State Medical University (Russia)

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Background: Nowdays the Department and clinic of psychiatry equipped with modern apparatus for ECT. Most frequently ECT is given to patients with therapeutically resistant schizophrenia with continuing pharmacotherapy.
Methods: The frequency of sessions - 2 times a week. The procedure is performed in a separate chamber resuscitation equipped with a ventilator "Phase-3C" and centralized supply of oxygen.
For sedation (prevention of bradycardia, hypersalivation) used intravenous atropine 0.01 mg/kg, typically 0.5 mg. as an anesthetic is used thiopental sodium. Dose of thiopental sodium 200-400 mg, usually 250 mg. As a muscle relaxant used suxamethonium. Artificial lung ventilation is held at saturation oxygen breathing mixture at the level of 30-40%.
During the first session, following parameters of stimulation are used: the bitemporal electrodes, the current dose of 120 mC, frequency of 27 Hz, pulse width 0.2 ms, the amplitude of 550 mA, modulation continuous, mode auto, start mode smooth.
In case of insufficient (less than 20 sec) the duration of the muscular component of convulsive attack in the next session the parameters of stimulation are changed in this order: 1) increase of current dose by 10-20 mC; 2) increase of amplitude from 550 mA to 850 mA; 3) increased frequency of pulse; 4) increase of pulse duration (max 1.0 s); 5) using of discontinuous modulation; 6) using fast start mode. Usually only need to complete steps 1-3 to achieve the desired duration of convulsive attack.
It is possible to use simultaneous execution of steps 1 and 2, 1 and 3 for the early achievement of the effective parameters of the electric stimulation.

For the prevention and correction of cognitive impairment according to the testimony piracetam and ethylmethylhydroxypyridine succinate are used: intravenously the drip during the procedure, and oral daily during the course of ECT.
Results and Conclusions: Usually a course of ECT includes 8-12 procedures, at the average of 10 sessions. Clinical effects of therapy often can be fixed after the 3rd session. The lack of clinical dynamics after the 6th session in most cases suggests a low effectiveness of ECT in the further course.

P.08 The comparative diagnostics of depression in patients with schizophrenia at different stages of the disease

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The problem of depression in schizophrenia is one of the most urgent in modern psychiatry. The incidence of depressive symptoms in schizophrenia ranges from 7 to 70%.
The aim of this study was to examine the problems of diagnosing depressive disorders in schizophrenic patients with different duration of the disease.
Methods: The study included 50 patients with an established diagnosis of schizophrenia, according to the criteria of ICD-10, with different duration of the disease. All patients were in various stages of observation. The used means were outpatient and hospital records of patients, the Zung scale of depression self-assessment.
Results: The most number of patients demonstrated the depressive disorders after the acute attack (61%), in premorbid stage (52%) and during an acute attack (45%). The prevalence of depressive disorders during the disease was found to be 39%, and at the stage of the attack cupping - 34%. At the same time the prevalence of depressive disorders in the stage of remission was indicated in only 27% of the questionnaires. Analysis of the results revealed significant differences between inpatients and outpatients. For example, during an acute episode of schizophrenia, the development of depressive disorders was observed in 51.6% of cases in the hospital, and only 39.5% - at the outpatient stage. Similarly, the possibility of developing depressive disorders at the stage of acute attack was detected in 38.8% of patients in the hospital, and 29.9% receiving treatment as outpatients. At the same time, out-patients often noted the possibility of developing depressive disorders at a stage of remission (34.2% vs. 20.2% fixed).
Conclusions: According to our research, the development of depression may occur at any stage of the disease, but the most characterized is the depression after an acute attack, at the stage of premorbid and as part of an acute attack. According to this we may suggest that the presence of depression in schizophrenic patients at various stages of schizophrenia flow has a different predictive value for the disease in common.

P.09 Differentiated treatment of nonpsychotic mental disorders in perimenopausal women

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The relevance of the study is determined by the high level of pathological variants of the climacteric syndrome (CS) in perimenopausal women. Objective: comparative analysis of the effectiveness of treatment of non-psychotic mental disorders in perimenopausal women.
Materials and methods. 130 women aged 45 to 55 years (mean age 50.5+3.5 years) with non-psychotic mental disorders in perimenopausal period were included in the study. The assessment scales used were the Hamilton Depression (HDRS-17), Hamilton anxiety (HARS). Intensity of the climacteric syndrome was determined by modified menopausal index Uvarova (MMI). Statistical analysis was performed using Statistica for Windows (Ver. 12.0).
Results. For the regression analysis we used the mathematical model: y = 10,78 + 1,31 * x, where y - menopausal index, x - severity on the Hamilton scale. n = 130, r = 0.64, r2 = 0.41, F = 51.65 at p <0.000001, 6.57 standard error of estimate. The menopausal women were divided into 2 subgroups according to CS severity. The mild CS group was characterized by severe depression severity (HDRS) and average anxiety (HARS). These patients received Agomelatine 25-50 mg 30-40 minutes before bedtime. The moderate severity CS group was characterized by very severe depression, high levels of anxiety, and overall severity In addition to the 25-50 mg of agomelatine these women received 5-10 mg alimemazine in the evening. At week 4 response of depression in the intervention group was superior to the control group (p = 0,01; p = 0.77) , but the efficacy was comparable at week 8 (p = 0.11). Response of anxiety was comparable at week 4 (p = 0,0002; p = 0.01), but at week 8 was higher in the study group (p = 0,0003; p = 0.07). Efficiency of treatment was significantly higher in the MMI main group 4 (p = 0.0002; p = 0.21) and 8 (p = 0.0004; p> 0.05) week treatment.
Conclusion: Severity of the alarm depends on the severity of menopausal symptoms in women with non-psychotic mental disorders in perimenopausal.
Differentiated psychopharmacotherapy depending on the severity of menopausal symptoms is superior to classical psychopharmacotherapy.

P.10 Naturalistic, retrospective comparison between antidepressant therapy and atypical antipsychotic augmentation therapy for patients with major depressive disorder

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Background: Previous studies have shown that atypical antipsychotic (AAP) augmentation is effective for treatment-resistant and severe major depressive disorder (MDD). Most treatment guidelines recommend AAP augmentation for treatment of non- or partial-responders to antidepressants (ADs); AAP augmentation is also effective for more severe depression. The effects of ADs usually appear several weeks after initiation of treatment, and AAP augmentation can advance therapeutic responses in some patients. In this study, we performed a naturalistic, retrospective trial to compare early response and remission rates between AD treatment and AAP augmentation in real-life clinical practice.
Methods: A retrospective chart review of patients with MDD without psychotic features and starting treatment for a new major depressive episode was conducted between January 2011 and July 2011. Patients treated with mood stabilizers, conventional antipsychotics, psychostimulants or thyroid hormone augmentation were excluded. Hamilton Depression Rating Scale 17-item (HDRS-17) scores were collected at baseline, 2 weeks and 8±1 weeks after treatment. Response was defined as a ≥50% reduction from baseline HDRS-17 scores; remission was a score of ≤7.
Results: Of 82 patients included, 31 were in the AD group and 51 were in the AAP augmentation group. At 8 weeks, the AD group was taking 1.26±0.51 types of ADs and the AAP augmentation group 1.31±0.54, plus 1.06±0.19 AAPs. At 2 weeks, response was observed in 11 patients (35.48%) in the AD group and 18 patients (35.29%) in the AAP augmentation group ($\chi^2 = 0$, p = 1). At week 8, 16 (52.44%) and 27 patients (52.94%) achieved remission ($\chi^2 = 0$, p = 1), respectively. However, baseline HDRS-17 total scores were 18.55±5.73 and 22.39±6.14 (t = 2.819, p < 0.01) for the AD and AAP groups, respectively.

Conclusion: Compared with AD treatment, AAP augmentation did not show a more rapid response nor greater remission rates. Considering that the AAP augmentation group had more severe depressive symptoms at baseline, AAP augmentation may be effective in severe MDD.

P.11 Relation between quality of sleep and stress, anxiety and depression in a sample of Egyptian medical students

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Introduction: Several studies conducted over the years have investigated the prevalence of stress, anxiety and depression among college students, but only few studies have been conducted among medical students and even fewer investigated the relation between these symptoms and the quality of sleep.
This study sought to explore the prevalence of symptoms of stress, anxiety and depression and their relationships to sleep quality in different academic classes of medical undergraduate students of two Egyptian Universities. The aim of the current study also was to explore whether certain sociodemographic variables might be associated with these symptoms.
Methods: This cross-sectional, questionnaire-based, observational study was conducted during the period of April to June 2015, among 1182 undergraduate medical students who were enrolled at Assiut and Mansoura Universities in Egypt. The data were gathered using a sociodemographic questionnaire, the Pittsburgh Sleep Quality Index (PSQI), and the Depression Anxiety Stress Scales (DASS). The results were analyzed using SPSS software.
Results: In our sample 792 students reported significant stress (67%), 830 students reported significant anxiety (70%), and 944 students reported significant depression (79.8%).
There was a significant difference in stress, depression and anxiety in relation to gender, with higher prevalence and higher levels of stress, depression and anxiety among females (P=0.008, 0.040, and 0.002 respectively).
There was a significant difference in stress severity rating in relation to caffeine consumption, physical exercise, work while conducting education, subjective sleep quality, sleep latency, sleep efficiency, daytime functioning, taking sleep medications, and sleep disturbance (P=0.002, 0.030, 0.000, 0.000, 0.000, 0.005, 0.000, 0.000 and 0.000 respectively).
There was a significant difference in depression severity rating in relation to physical exercise, work while conducting education, subjective sleep quality, sleep latency, daytime functioning, taking sleep medications, and sleep disturbance (P=0.017, 0.025, 0.000,0.001, 0.000, 0.001 and 0.000 respectively).
There was a significant relationship between anxiety severity rating and subjective sleep quality, sleep latency, daytime functioning, taking sleep medications, and sleep disturbance, (P=0.000, 0.000, 0.000,0.000 and 0.000 respectively).
There was a non-significant relationship between academic performance and each of stress, anxiety and depression scores (P=0.524, 0.712 and 0.194).
There was a significant difference in stress, anxiety and depression severity rating and year of education (P=0.002, 0.003, 0.002), with higher prevalence among students in earlier years of education.
There was a significant relationship between sleep quality according to PSQI impression and each of stress, anxiety and depression severity rating, with higher prevalence of stress, anxiety and depression as well as higher scores among poor sleepers (P=0.000, 0.000, 0.000).
There was a significant positive correlation between PSQI score (as indicator of sleep quality) and each of stress, anxiety and depression scores (P=0.000 for each of them). The higher the PSQI score (which indicates poorer sleep quality) the higher the stress, anxiety and depression scores.
Conclusion: Stress, depression and anxiety are highly prevalent among Egyptian medical students, and they are correlated to the quality of their sleep. Symptoms of stress, depression and anxiety are more prevalent and are more severe among females and among students in earlier years of education.

KEY WORDS
Stress, anxiety, depression, academic performance, sleep quality, medical students, Pittsburgh Sleep Quality Index (PSQI), Depression Anxiety Stress Scales (DASS).

P.12 Neuroplasticity and second messenger pathways in antidepressant efficacy: pharmacogenetic results from a prospective trial investigating treatment resistance

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Background: Genes belonging to neuroplasticity, monoamine, circadian rhythm, and transcription factor pathways have been previously investigated as modulators of antidepressant efficacy. The present study aimed to confirm and improve the knowledge about the pharmacogenetics of treatment-resistant depression (TRD).
Methods: 220 patients with major depressive disorder who did not respond to a previous antidepressant drug during the current episode were included. Patients were treated with venlfaxine for 4-6 weeks and in case of non-response they were treated with escitalopram for 4-6 weeks. The phenotypes were response and remission to venlafaxine, non-response (TRDA) and non-remission (TRDB) to neither venlafaxine nor escitalopram. 50 tag SNPs in 14 genes belonging to the pathways of interest were tested for association with phenotypes using logistic regression models. KEGG pathways that included one or more of the genes associated with phenotypes were investigated in the STAR*D genome-wide dataset in order to identify the biological mechanisms that may be responsible for the involvement of those genes in antidepressant efficacy. For this purpose, genes in the pathways of interest were imputed (IMPUTE2 software) and each pathway was tested for a significant different distribution of SNPs with $p<0.05$ or $p<0.01$ compared to a random matched pathway (Fisher's exact test; 10e4 permutations).
Results: The associations between ZNF804A rs7603001 and response, CREB1 rs2254137 and remission were replicated, as well as CHL1 rs2133402 and lower risk of TRDA. Other CHL1 SNPs were potential predictors of TRDA (rs1516340, rs2272522, rs1516338, rs2133402) and BDNF rs6265 Val allele was

associated with venlafaxine remission. The MAPK1 rs6928 SNP was consistently associated with all the investigated phenotypes. The protein processing in endoplasmic reticulum pathway (hsa04141) was the best pathway that may explain the mechanisms by which MAPK1 may be involved in antidepressant response (nominal p=0.017, but it did survive after permutations).
Conclusions: Previously reported associations were confirmed, particularly in the CHL1, CREB1, ZNF804A and BDNF genes. These genes play pivotal roles in synaptic plasticity, neural activity and connectivity, learning and memory.

P.13 Genetics of long-term treatment outcome in Bipolar Disorder

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Background: The identification of reliable genetic predictors of treatment response could significantly improve the prognosis of bipolar disorder (BD).
Methods: This study investigated genetic predictors of long-term treatment-outcome (> 6 months) in 723 patients with BD type I from the Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD) genome-wide dataset. No treatment restriction was applied reflecting a natural setting scenario. Phenotypes were the total and depressive episode rates and the occurrence of one or more (hypo)manic/mixed episodes. Quality control was performed according to standard criteria and linear/logistic regressions were applied using an additive model. Genes harboring SNPs with p<10e-4 were included in a functional enrichment analysis using Genemania (www.genemania.org/). After the imputation of genes in each functionally enriched pathway (IMPUTE2), the proportion of SNPs with p<0.05 and p<0.01 between each index pathway and a random matched pathway was compared (Fisher exact test; 10e04 permutations).
Results: The total rate of episode recurrence was associated with SNPs in the TRAF3IP2-AS1 (rs6568686, p=3.66e-08), RNLS (rs1359582, p=1.28e-07), DFNB31 (rs10513249, p=4.75e-07), NFYC (rs10489167, p=5.53e-07) and DEPTOR (rs6993270, p=9.24e-07) genes. SNPs in the SORCS2 and NRXN1 genes were also among the top findings. The rate of depressive episodes was associated with the DFNB31 rs10513249 (p=9.35e-09) and some markers 700 Kbp from KCNJ2. The most promising pathways were the positive regulation of MAPK cascade (GO:0043410) for depressive recurrence (p=0.0006) and learning/memory (GO:0007611) for total episode recurrence (p=0.09), but no pathway survived after permutations. The top genes within these pathways were NTRK2, GRIN2B, GRIN2A, GRM4, CHRNA7, LRRK2 and TGFB2. No genetic predictors of (hypo)manic/mixed recurrence were identified.
Conclusions: The present study supported the involvement of genes previously associated with the susceptibility to BD (DFNB31, SORCS2, NRXN1, GRIN2A, GRM4, GRIN2B), antidepressant action (DEPTOR, CHRNA7, NRXN1), and mood stabilizer or antipsychotic action (NTRK2, CHRNA7, NRXN1) in long-term treatment outcome of BD. Further studies focused on the outlined genes may be helpful to provide validated markers treatment outcome in BD.

P.14 ECG alterations associated with psychotropic drug use in a real clinical setting: clinical and genetic predictors

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Background: QTc prolongation is a potentially life-threatening side effect of some antidepressants and antipsychotics, and a number of other ECG alterations were associated with psychotropic drugs. Poor knowledge is available about the genetic risk factors of QTc prolongation during treatment with these drugs.
Methods: Patients (n=213) with a diagnosis of mood, anxiety or psychotic disorder who required a pharmacological treatment with antidepressant and/or antipsychotic drugs were included. A cross-sectional subsample (n=145) had one standard ECG recording at the beginning of treatment while a prospective subsample (n=68) had an ECG recording at baseline and follow-up. 13 SNPs in the gene coding for the α1-subunit of cardiac L-type calcium channel (CACNA1C) were genotyped. In the prospective sample changes in ECG parameters (primarily QTc) between baseline and follow-up were analyzed in relation to the number of psychotropic drugs stratified according to their known cardiovascular risk (from high to none). In the cross-sectional sample ECG parameters were compared among groups taking psychotropic drugs with different cardiovascular risk. The effect of genotypes on these associations were tested. Generalized linear models were applied including covariates that affected outcomes (age, gender, plasma potassium, calcium and magnesium levels, glomerular filtration rate).
Results: In the prospective sample, no major change in QTc or other ECG parameters was found in any medication group. In the cross-sectional sample, a correlation between the total number of risk drugs and the frequency of ST and R wave morphological alterations was found. CACNA1C rs1006737 and rs1016388 affected QTc duration in a consistent direction in both subsamples. No patient showed QTc values with clearly increased risk (> 500 msec) while only two patients treated with haloperidol and clozapine showed QTc prolongation > 20 msec.
Conclusions: Minor ECG changes are probably more common in patients treated with psychotropic drugs, but no clinically relevant effects on QTc interval were observed. Polymorphisms in the CACNA1C gene may modulate QTc duration in patients treated with psychotropic drugs.

P.15 Drug-induced liver injury during antidepressant treatment: Results of AMSP - a drug surveillance program

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Background: Drug induced liver injury (DILI) is a common cause of liver damage and the most frequent reason for withdrawal of a drug in the United States. The symptoms of drug-induced liver damage are extremely diverse with some patients remaining asymptomatic.
Methods: This observational study is based on data of AMSP (Arzneimittelsicherheit in der Psychiatrie), a multicenter drug surveillance program in German-speaking countries (Austria, Germany and Switzerland) recording severe drug reactions in psychiatric inpatients. Of 184.234 psychiatric inpatients treated

with antidepressants between 1993 and 2011 in 80 psychiatric hospitals, 149 cases of DILI (0.08%) were reported.
Results: The study revealed that incidence rates of DILI were highest during treatment with mianserine (0.36%), agomelatine (0.33%) and clomipramine (0.23%). The lowest probability of DILI occurred during treatment with selective serotonin reuptake inhibitors (SSRIs= (0.03%), especially escitalopram (0.01%), citalopram (0.02%) and fluoxetine (0.02%). The most common clinical symptoms were nausea, fatigue, loss of appetite and abdominal pain. In contrast to previous findings the dosage at the timepoint when DILI occurred was higher in 7 out of 9 substances than the median overall dosage. Regarding liver enzymes, duloxetine and clomipramine were associated with increased Glutamat-Pyruvat-Transaminase (GPT) and Glutamat-Oxalat-Transaminase (GOT) values whilst mirtazapine hardly increased enzyme values. By contrast, duloxetine performed best in terms of gamma-Glutamyl-Transferase (gamma-GT) values, and trimipramine, clomipramine and venlafaxine performed worst.
Conclusions: Our findings suggest that SSRIs are less likely than the other antidepressants (ADs), examined in this study, to precipitate DILI, especially in patients with pre-known liver dysfunction.

KEY WORDS
Adverse drug reaction, antidepressants, drug surveillance, elevation of liver enzymes.

P.16 Neuroimaging Correlates of insight in Obsessive compulsive disorder:A fMRI study

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Aim of the study: To study the neural substrates of insight in OCD by comparing patients with good insight, patients with poor insight and matched healthy controls using functional MRI.
Methodology: Subjects were recruited from among patients attending OCD clinic, adult psychiatry services and psychiatry ward inpatients of National Institute of Mental Health And Neurosciences (NIMHANS), Bangalore. They were further divided into 'good insight' (n=30) and 'poor insight' (n=14) using Brown's assessment of beliefs scale. Control subjects (n=30) were recruited from consenting volunteers. 3T MRI was used, mental rotation task was paradigm used for fMRI and analysis was done by SPM 8.
Results: Comparison of Poor insight patients and Good insight patients revealed differential activation in Left superior/Medial frontal gyrus (corresponding to the DLPFC) A negative correlation between BABS score and activation of right inferior parietal lobule. Mental Rotation task behavioural data results : the OCD patient group had significantly lower accuracy compared to healthy controls. Poor insight group had significantly decreased accuracy ratio compared to Good insight group and healthy controls. A negative correlation was noted between BABS score and accuracy ratio, indicating that the poorer the insight the greater the errors during the active task.
Conclusion: Insight has been important prognostic factor in OCD. Poor insight patients had specific deficits in left medial frontal gyrus and right inferior parietal lobule as compared to good insight patients and healthy controls. Together, these findings indicate that insight has a strong neurobiological underpinning in OCD

P.17 Can Ginkgo biloba extract attenuate anxiety, stress and fatigue in traumatized refugees?

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Background and Objectives: Anxiety, stress and fatigue have high prevalence worldwide. Traumatized refugees are more likely to develop these disorders. The use of herbal therapy in treating anxiety and stress is growing despite the presence of synthetic therapies. Ginkgo biloba (GB) anxiolytic effects have been described in limited trials. The primary objective of the current study is to measure the changes in anxiety and perceived stress among refugees treated with Ginkgo biloba. The secondary objective is to measure the changes in fatigue.
Design: A six-week follow up study for two groups of refugees (controls vs treated) was performed. Scores of anxiety, stress and fatigue were measured at baseline and at follow up.
Methods: Anxiety, stress and fatigue scores were determined by using the Hamilton Anxiety Scale HAMA-A, Perceived Stress Scale PSS and the Multi-fatigue Inventory respectively.
Results: Significant reduction in HAMA-A scores was evident in refugees treated with Gingko biloba. Furthermore, the scores of physical fatigue, mental fatigue and reduced activities showed significant reduction.
Conclusion: The adequacy of Ginkgo biloba in reducing anxiety and fatigue symptoms provides a herbal therapeutic option with high safety and low addictive potential.

P.18 A feasible phone –based sleep hygiene program for patients on hemodialysis

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Objectives: Sleep disorder is one of the psychiatric problem in patients with renal failure who are under hemodialysis treatment. 88.2% of these patients suffer from at least one type of sleep disorder.(1)this problem can change the patients quality of life , so finding ways which manage this problem is an important factor for improvement of QOL.
Method: In this randomized control clinical trial, 62 patients were randomly selected into intervention group (n=31) and control group (n=31).The mean global score and component scores of sleep quality were not significantly different between the 2 groups before intervention. Intervention group received a feasible telephone sleep psychoeducational (4 session) during 1 month.
Result: after 2 month assessment of sleep quality was done by Pittsburg questionnaire .The mean score of subject sleep quality in the intervention group was significantly lower than control group (p=0.001). Changes in sleep latency, sleep disturbance and day time dysfunction were not significant.
Conclusion: Due to complications of hypnotic medications, considering effective non- pharmacological methods to improve sleep quality in hemodialysis patients is important (3). A feasible telephone psycho education program can be effective. Although in this research sleep hygiene program could not change all component of sleep, it seems that improvement of subjective sleep quality is important for the patients.

P.19 A mega-analysis of fixed-dose trials reveals dose-dependency and a rapid onset of action for the antidepressant effect of selective serotonin reuptake inhibitors

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Background: Although selective serotonin reuptake inhibitors (SSRIs) have long served as first line of treatment for depression, the important issue of to what extent high doses are more effective than low remains a matter of controversy. Many authors thus have described the SSRI dose response curve as flat, and some debaters have put forward this alleged lack of dose response relationship as an argument for the assumption that antidepressants exert no specific antidepressant effect.
Methods: We undertook patient-level, pooled analyses of all company-sponsored, acute-phase, placebo-controlled, fixed-dose trials using the Hamilton Depression Rating Scale (HDRS) conducted to evaluate the effect of citalopram, paroxetine, or sertraline in adult major depression (n=2859). Because of the well-established shortcomings of the effect parameter commonly used in such trials, i.e. the sum-score of the 17 items on the HDRS (HDRS-17-sum), the single item depressed mood, which is a more sensitive measure to detect an antidepressant signal, was designated primary effect parameter.
Results: While both high-dose (citalopram: ≥40 mg, paroxetine: ≥20 mg; sertraline: ≥100 mg) and low-dose (citalopram: 10 or 20 mg, paroxetine: 10 mg; sertraline: 50 mg) SSRI outperformed placebo after 2-3 weeks with respect to reduction in HDRS-17-sum, high-dose outperformed low-dose after 6 weeks. With respect to the depressed mood item, high-dose and low-dose both outperformed placebo already after one week, high-dose outperforming low-dose after five weeks. The effect size for high-dose versus placebo with respect to reduction in depressed mood at endpoint was 0.5.
Conclusions: The results reveal a clear-cut dose response relationship for the antidepressant effects of the SSRIs. We suggest that including patients treated with suboptimal dosage in previous meta-analyses has contributed to an understatement of the magnitude of the antidepressant effect of these drugs. Moreover, the finding that both low-dose and high-dose SSRI reduce depressed mood more effectively than placebo already during the first week of treatment may have implications for our understanding of the mechanism of action of these drugs.

P.20 A meta-analysis on microarray-based transcriptome-wide mRNA expression profiling of patients with posttraumatic stress syndrome suggesting an important role of NFκB

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Background: Posttraumatic stress disorder is widely reported with its high prevalence rates and strong negative influence on people's daily life, different hypothesis sprung out, which had no consensus for a specific pathogenesis.
Method: A systematic overview was performed, by collecting the published papers with the microarray experiments, we used the dysregulated genes with an Ingenuity Pathway Analysis tool, and compared the canonical pathway, diseases and functions and networks. Motif search was performed with the integrative analysis tool of Galaxy/Cistrome, to observe the common motif among the dysregulated genes of the four papers.
Results: The pathways changed according to the sample source, from blood or brain tissue. Among them, pathways related to cancer, tumor, immune system and mitochondrial function were most important. Cellular functions, free radical scavenging functions, inflammation diseases and cancer were most related. NFκB played a central role in the networks of PTSD, it can be inhabited among blood samples, and it was activated among the brain tissue of PTSD patients. NFκB also belonged to the most pronounced transcription factors in the motif analysis.
Conclusion: The main pathways related to the dysregulated genes among the PTSD patients were also diverse with the samples sources, among which, inflammation and oxidative stress was most important. NFκB plays a pivotal role in the pathogenesis of PTSD, which was controversial about the opposite regulation in the blood and brain tissue. More research should be performed on NFκB and oxidative stress to clarify the mechanisms of NFκB in the progression of PTSD.

KEY WORDS
PTSD, pathway, diseases and functions, networks, NFκB

P.21 Treatment adequacy of Anxiety Disorders among young adults in Finland

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Background: The purpose of this study is to describe treatments received for anxiety disorders and to define factors associated with treatment adequacy and with dropouts from treatment in a Finnish general population sample of young adults.
Methods: A questionnaire containing several mental health screens was sent to a nationally representative two-stage cluster sample of 1894 Finns aged 19 to 34 years. All screen positives and a random sample of screen negatives were invited to a mental health assessment including a SCID interview. For the final diagnostic assessment, case records from mental health treatments for the same sample were obtained. This article investigates treatment received, treatment adequacy and dropouts from treatment of 92 participants with a lifetime anxiety disorder. Based on all available information, receiving antidepressant or buspirone medication for at least two months with at least four visits with any type of physician or at least eight sessions of psychotherapy within 12 months or at least four days of hospitalization were regarded as minimally adequate treatment for anxiety disorders. Treatment dropout was rated if the treatment strategy was assessed to be adequate according to the case records but the patient discontinued the visits by his own decision.
Results: Of participants with anxiety disorders (excluding those with a single specific phobia), 41.8% had received minimally adequate treatment. In the multivariate analysis, comorbid substance use disorder was associated with antidepressant or buspirone medication lasting at least 2 months. Those who were currently married or cohabiting had lower odds of having at least four visits with a physician a year. None of these factors were associated with the final outcome of minimally adequate treatment or treatment dropout. Participants with comorbid personality disorders received and misused benzodiazepines more often than others.
Conclusions: More efforts are needed to provide adequate treatment for young adults with anxiety disorders. Attention should be paid to benzodiazepine prescribing to individuals with personality disorders.

P.22 Aversive eye gaze during a speech in virtual environment in patients with social anxiety disorder

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One of the main characteristics of social anxiety disorder (SAD) is excessive fear of social evaluation. In such situations, it is anticipated that anxiety may influence gaze behaviour. Thus the current study adopted virtual reality (VR) to examine eye gaze pattern of SAD patients during a speech.
SAD patients (n = 77) and healthy controls (n = 50, HCs) presented speeches to virtual audience on topics of different conditions. Two topics were granted enough time for preparation; four were impromptu. Each speech lasted two minutes. Participants' eye movement was recorded via an eye tracker attached to a head mounted display they wore. Region of interest (ROI) for the analysis was the area occupied by the audience. A 2 x 2 x 2 analysis of variance was conducted on the amount of eye gaze, with subject group (SAD vs. HCs), type of speech (prepared vs. impromptu) and ROI type (audience vs. empty area) as factors.
The analysis yielded a main effect of group. Less gaze was directed towards the audience for SAD patients than HCs ($F_{(1, 125)}$ = 3.88 p = 0.05). Gaze towards the audience also varied as a function of speech type. HCs tended to make more eye contacts with the audience during impromptu speeches than during prepared speeches (t = 1.92 p = 0.06). For the area not occupied by the audience (empty area), the amount of gaze also varied as a function of speech type. HCs directed more gaze to the empty area during prepared speeches than during impromptu speeches (t = -2.17 p < .05).
A prepared speech involves recalling of memorised content. On the contrary, an impromptu speech is more demanding, as involves first-hand expression of speaker's opinion. Thus it may be the case that SAD patients look more at the audience in a prepared speech. However, regardless of speech condition, the main area of focus for SAD patients was the empty area. This suggests that eye gaze pattern in SAD is aversive. The current study leaves an implication for developing a therapy tool using VR.

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P.23 High use of psychotropics overdose among suicide attempters in Korea

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Objective: The availability of suicide methods affects the risk of suicide attempts. This study examined the patterns of substances ingested by suicide attempters (SAs) and the characteristics of SAs using psychotropic overdoses.
Methods: Data for 384 of the 462 eligible SAs who used self-poisoning were analyzed. Demographic variables, clinical characteristics, and factors related to the suicide attempts were examined.
Results: There were 256 (66.7%) females and 128 (33.3%) males. Roughly half the SAs ingested psychotropics (n=179, 46.6%). Agricultural chemicals (n=84, 21.9%) were the second most frequently ingested substances, followed by analgesics (n=62, 16.1%), household products (n=27, 7.0%), and other prescribed medications (n=23, 6.0%). Among psychotropics, the most frequently overdosed drugs were sedative–hypnotics, including hypnotics (n=104) and benzodiazepines (n=78). SAs favored Z-drugs and alprazolam. When compared with SAs with non-psychotropic overdoses, significantly more SAs with psychotropic overdoses were female (76% vs. 58.5%, p<0.001) and had a psychiatric history (59.8% vs. 29.8%, p<0.001). They had significantly more previous suicide attempts (0.52 ± 1.02 vs. 0.32 ± 0.80, p<0.05) and lower risk (7.96 ± 1.49 vs. 8.44 ± 1.99, p<0.01) and medical severity (3.06 ± 0.81 vs. 3.37 ± 0.93, p<0.005) scores.
Conclusion: Psychotropic overdose, especially with sedative–hypnotics, was a major method in suicide attempts. It is important that psychiatric patients are carefully evaluated and monitored for suicidality when prescribing psychotropics.

P.24 Use of personality measures and heart rate variability for subthreshold depressive symptoms of bipolar disorder in remission

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Introduction: Bipolar disorder may display a functional decline in patients who are already in a clinical remission phase. The subliminal depressive symptoms are a strong predictive factor and are often recognized as a personality abnormality. The goal of this study is to verify how much subliminal depressive symptoms affect functional recovery in a remission phase and to confirm how such subliminal depression is expressed through a personality test. Also, we attempt to find a correlation between subliminal depression and heart rate variability.
Method: This study enrolled 101 patients with bipolar disorder in a remission state, who took the Functional Assessment Short Test for the evaluation of functional recovery. The presence of subliminal depression was assessed according to the CGI-D scale. The TCI and HEXCO personality test tool are used for comparative analysis of personality factors. The Heart Rate Variability test is also performed on the same day.
Result: Functional recovery group had a significantly greater number of cases with onset of mania for first episode and had a manic episode dominant polarity. There were a greater number of cases with acute onset and longer mean duration of remission. BDI, PANSS remission, CGI_D, CGI_O, HAM-D, BDRS, and MADRS were significantly lower in the functional recovery group. Functional recovery was largely associated with the subliminal symptoms. It showed the harm avoidance tendency, the low score in self-directedness, cooperativeness, extraversion, and agreeableness. Harm avoidance is negatively correlated with SDSD, significantly. Autonomy, cooperativeness, and extraversion scale are negatively correlated with nLF, while they are positively correlated with nHF.
Conclusion: The personality test tool and heart rate variability may be suggested as a tool to reflect the symptoms of subliminal mood. In cases where a patient shows such a personality manifestation or functional compromise, clinicians must pay attention to the residual depressive symptoms.

P.25 Pediatric psychotropic prescribing practices in Ukraine

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Background: There is a significant increase in the use of, psychotropic and neurotropic medication in pediatric practice with parallel increase in the reporting of serious adverse effects (AE). New antipsychotic medications are associated with significant cardiac and metabolic AE. Meanwhile SSRI are safer in overdose than TCA carry, they show increased risk of suicidality.
Aims: The aim of the study was to study the frequency and validity of the use of psychotropic drugs in children in Ukraine. We also studied the procedures applied for AE monitoring.
Methods: A study specific questionnaire was mailed to all child psychiatrists(ChPsych), pediatricians and GPs in Ukraine. They were asked about prescribing practice of psychotropic medication in children. Some questions were focused on the description of the occurred AE and their management.
Results: 270 out of 600 questionnaires were returned (45 %). 167 were child psychiatrists (ChPsych) (61.9%), 73 (27.0%) - pediatricians and 30 (11.1%) - GPs. Respondents reported on routinely used medications: neurometabolic (95.9 %), antipsychotics (64.8%), antidepressants (28.5%), and ADHD medications (7.2%) as most commonly prescribed. All ChPsych prescribed atypical antipsychotics, 1/3 of them - used antipsychotics in children under 6 years, 12 (7.2 %) – under the age of three. ChPsych mostly prescribed SSRI (Sertraline, Escitalopram, Citalopram, Fluoxetine) (77.8%).Very few pediatricians reported on prescribing of psychotropic medication (32.9%). Comparisons were made using x test between those who prescribed routinely (39.6%) and those who seldom prescribed (60.4%). Clinicians who prescribed more often were more likely to be a ChPsych (χ^2 = 75.416, p=0.000), more likely to value the use of psychotropic medication (χ^2 =14.463, p=0.000). GPs routinely carry out height, weight, heart rate and blood pressure. ChPsych, along with the usual behavioral toxicity are monitoring drugs and suicide risk. Standard practice should include baseline ECG, fasting blood glucose, cholesterol and lipid profile, LFT and FBC. Only 13.2% of ChPsych conducted such studies (χ^2 =8.036, p=0.03).
Conclusion: Administration of psychotropic drugs in Ukraine does not meet the practice existing in the USA [1], UK [2] and Ireland [3]. Guidelines, although limited to antipsychotic, antidepressant medication early childhood are to be welcomed. Prescribing of medication to children, with all the biological and ethical concerns, needs to follow evidenced based practice, be judiciously used and follow high quality assessments with clear treatment and AE monitoring.

P.26 Movement disorders in the autism spectrum disorders in children

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Background: Several studies have found that children with autism spectrum disorders and mental retardation experience difficulties with the development of fine and gross motor have considerable difficulty with the formation of communication skills. Autism spectrum disorder characterized by impaired communication and movement patterns.
Aims: We investigated the formation of particular violations motor areas in children with autism spectrum disorder (ASD), to communicate the severity of violations difficulties with the development of motor skills with disabilities receptive, expressive speech and cognitive impairment.
Methods: We used an independent groups design with two groups of children (4-6 years old). Randomly assigned 16 children with ASD (mean age, 5.2 years). The control group was representative by 13 children without developmental disorders (mean age, 4.7 years). The diagnosis of ASD established in accordance with the diagnostic criteria of ICD-10 on the basis of semi-structured interviews with parents (Autism Diagnostic Interview-Revised (ADI-R)) and a structured assessment of actual behavior (Autism Diagnostic Observation Schedule (ADOS)). Child development of individual areas assessed using the Psychoeducational Profile (PEP). Formation of social skills assessed by the Vineland Adaptive Behavior Scales, Second Edition (Vineland-II). Cognitive functioning was assessed using the Wechsler Intelligence Scale for Children (WISC).
Results: For children with ASD and low results in the evaluation of intelligence more common disorders of fine motor skills. For children with ASD without mental retardation more common deregulation postures and visual-motor coordination. Children without ASD demonstrated a higher level of formation motor ($p < 0.05$) and language skills ($p < 0.001$). Children without mental retardation rarely demonstrated the existence of problems in motor areas, had significant differences in speech development. Children with ASD showed significantly poorer results in language development compared with the control group.
Conclusions: The movement disorders, their typology correlate with the severity of speech disorders with the level of cognitive failure. Children with ASD are at risk of clinically significant motor deficits. Children with ASD more often experience difficulties with visual-motor coordination.

P.27 An audit of treatment modalities for depressed and anxious young mothers

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Background/Aim: Maternal mental health service is a tertiary service which provides psychiatric care for pregnant or post partal women, from their second trimester until their baby turns 12 months of age. Maternal anxiety and depression can affect the bonding with the baby, attachment, and subsequently predispose the child to mental illness.
In addition to medication, regular psychiatric review and a key worker support (TAU), women are offered psychotherapy, either on an individual or group basis. Most common modality of offered psychotherapy is cognitive behavior therapy (CBT).
The author wanted to compare efficacy of group CBT in comparison to the individual CBT and TAU approach.
Methods: The retrospective audit and review of referrals over a period of 15 months from January 2014 was performed. 376 referrals were reviewed, and only 91 met the inclusion criteria (diagnosis of depression or anxiety disorder). The audit compared the scores on DASS 21 (Depression, Anxiety and Stress Scale) and EDS (Edinbourgh Postnatal Depression Scale) on entry to the service, prior to CBT therapy and at the completion of the treatment.
The women were devided into three groups; those receiving TAU, those treated with group CBT, and individual CBT.
Results: Of 91 women treated for mood and/or anxiety disorder, 43 received TAU, 17 had individual CBT, and 20 received group CBT. Follow up psychometric data were incomplete up to 50%, with inter group variations; the worst follow up was at TAU group, the best at the individual CBT group.
43% of women in TAU group improved on DASS and EDS scores. In the individual CBT group, 65% improved on EDS, 52% on DASS Depression scale, and over 40% on Anxiety and Stress scales. The third group improved between 60 and 70% on DASS scales and 55% on EDS. Due to poor psychometic follow-up, statistical analysis was not carried out.
Conclusion: CBT group therapy is recommended over the individual CBT, as is more cost effective.

P.28 Korean Medication Algorithm for Bipolar Disorder 2014: Safety and Tolerability

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Objective: The complexity of the treatment for bipolar disorder is often caused by the presence of side effects of various psychiatric medications. In particular, weight gain and metabolic syndrome are currently major concerns in the medication for bipolar disorders. Therefore, we undertook a survey of expert opinion to help make clinical decisions in these special situations.
Methods: A written survey which asked about treatment strategies in the safety and tolerability was prepared; 1) weight gain, 2) antipsychotic relate hyperprolactinemia, 3) lamotrigine related skin rash, 4) treatment non-adherence, and 5) genetic counselling. Treatment options were scored using a 9-point scale for rating appropriateness of clinical decisions in some issues. In other issues, experts were asked to choose to determine the raking of preferences on the list. Sixty-four experts of the review committee completed the survey. We classified the expert opinions about preferences by chi-square test.
Results: Experts preferred behavioral and diet modification for weight gain, switching to prolactin-sparing-antipsychotics fro antipsychotic-induced hyperprolactinemia, reducing dose of lamotrigine for its related benign skin rash, and prescribing once a day for treatment adherence.
Conclusion: With the limitation of expert opinion, authors hope that the results of this study will provide valuable information to assist the clinical decision about the treatment of bipolar disorder in complicated situations.

P.29 Mental Health Problems in Adult Malaysian Population

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Objectives: To determine the prevalence of general anxiety disorders GAD, depression and suicidal risks among Malaysian adults.
Methodology: A part of a larger National Health and Morbidity Survey (NHMS) covering all individuals residing in Malaysia for at least 2 weeks prior to data collection. A two stage stratified random sampling design was used. The main instruments used were the MINI International Neuropsychiatric Interview. Questions on suicidal behaviour modified from WHO SUPRE-MISS, administered in a face-to- face interview. The interviewers were students who completed high school. They were prior trained by psychiatrists familiar with administering the MINI, using video- taped interviews.
Results: There were 19,309 eligible subjects aged 16 and above took part. The response rate exceeded 98% for all parts of the questionnaires. 99.4% for GAD., 98.6% for Major Depressive Disorder, 99.6% for Suicidal ideation and Suicidal Plans, 99.1% for Suicide Attempts and 99.6% for Lifetime Suicide Attempts.
i) General Anxiety Disorders among Adult Malaysian Population (GAD). Total of 330 respondents diagnosed with GAD. The prevalence of GAD was 1.7%. Prevalence higher in urban areas and higher for females than the males (2.2% CI1.8-2.6 vs 1.3% CI0.9-1.6 OR=1.77).
ii) Major Depressive Disorders (MDD) among Adult Malaysian Population
a) Current Depression with prevalence of 1.8% (95% CI 1.5 - 2.1) The highest prevalence in FT. Kuala Lumpur 4.2% (95% CI 1.6- 6.9) and higher in urban areas urban 1.9% (95% CI 1.5-2.3): rural 1.6% (95% CI 1.2- 1.9) The prevalence was high in the age groups 16 – 24 2.5% (95% CI 1.7- 3.2) and 65 and above 2.2% (95% CI 1.0 3.3) . Females had almost twice rates than males (females 2.3% (95% CI 1.8- 2.7); males 1.4% (95% CI 1.0-1.7)). Indians had highest rate 4.6% (95% CI 2.9- 6.3) Prevalence of depression was high among lower education group. The widowed and single groups had high prevalence (widowed 2.9% [95% CI 1.7-4.1], single 2.5% [95% CI 1.8-3.2]). Current depression was higher in unemployed group 2.1% (95% CI 1.6- 2.6) and among urban poor 2.8% (95% CI 2.0-3.5).
b) Lifetime Depression prevalence was 2.4% (95% CI 2.1- 2.8). The highest prevalence noted in FT Kuala Lumpur 4.4% (95% CI 1.7- 7.0) as compared to the lowest prevalence in Kelantan 0.4% (95% CI 0.1- 0.8). The prevalence was high in urban areas; more for age group above 65 and above 2.8% (95%CI 1.5–4.2) and age group 16-24 3.1% (95% CI 2.4-3.9). Females were as many as two times than males (females [3.1%, 95% CI 2.6- 3.6); males [1.8%, 95%CI 1.4-2.1]). Indians had reported lifetime rates of 5.5% (95% CI 3.7- 7.3).
Prevalence was high in those with primary education 3.1% (95% CI 2.5- 3.8) and more among widow/divorcee 4.4% (95% CI 2.9-6.0), unemployed 2.7% (95% CI 2.2- 3.2) and lower income group. The prevalence was higher among urban poor 2.8% (95% CI 2.0-3.5) than the rural poor 1.9% (95% CI 1.2-2.6).
Recommendation: Future research must examine factors that might explain the variability in the prevalence. Increase promotion and enhance awareness about the importance of mental health issues to the specific target groups for example working adults, women, teenager, young adults and elderly age group. Early recognition/detection, early treatment of GAD and depression must be enhanced. The *Minda Sihat Program* must be further expanded. Priority now to strengthen the ongoing training using
Clinical Practice Guidelines CPG for GAD and Major Depression especially among Primary Care Providers.
Conclusions: The prevalence rates were comparable or lower from other countries. Some groups of the population were found to be at higher risk as compared to others i.e Female, Urban population and Indian ethnic. Strategies to prevent should be tailored to take into account site- specific and cultural differences rather than providing a one-size-fits-all program.

P.30 Sustained cognitive improvement in depression patients 6 months after ECT

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Background: There have been reports of retrograde amnesia and anterograde cognitive impairments in patients undergoing electroconvulsive treatment (ECT) for depression disorders. There is a lack of longitudinal follow-up studies. Currently, we follow depression patients for 2 years after ECT, employing a comprehensive neurocognitive test battery. Previously, we have demonstrated improved Attention and Visual Learning functions 6 weeks after ECT (IFMAD, 2014). Here we report the results of the assessment at 6 months after cessation of ECT.
Method: Data from 31 participants (20 women, 11 men) with a mean age of 46.0 years (SD 10.4, range 24-67) and a current ongoing treatment-resistant depressive episode (2 had schizoaffective and 7 had bipolar type II disorder) were collected before the start of ECT and 6 months post ECT. The square wave brief pulse ECT procedure was not standardized, but tailored to each individual. Current depression level was assessed with the Montgomery-Åsberg Rating Scale (MADRS). Memory problems were assessed with the Everyday Memory Questionnaire (EMQ).

Neurocognitive function was assessed with the MATRICS Consensus Cognitive Battery (MCCB), consisting of 10 tests: TMT-A, BACS, HVLT-R, SS-WMS, LNS, NAB Mazes, BVMT-R, Category Fluency, MSCEIT, and CPT-IP.
Results: After ECT, the depression score was significantly reduced, and there were no significant changes in self-reported memory problems. The improvement in 6 of the 10 cognitive tests, measuring Speed of Processing, Attention/Vigilance, visuospatial Working Memory, and Reasoning/Problem Solving functions, was statistically significant with large effect sizes. The other 4 test scores were not altered from baseline.
Conclusion: Compared to baseline, we found overall improved cognitive performance. Hence, our previously reported improvement in cognitive function at 6 weeks post ECT is sustained and expanded from 2 to 6 subtests of the MCCB 6 months after the end of treatment.

P.31 The association of allelic genes polymorphism with affective disorders in patients with pubertal schizophrenia

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Schizophrenia of children and adolescents is a serious mental disorder that is characterized by severe course and bad outcome. In the manifest stage of the disease before the undoubted psychotic manifestations symptoms of anxiety and fearful excitement are revealed in some patients. We report our study on the investigation of a number of genes related to the functioning of neurochemical systems in the brain that may be involved in the pathogenesis of the symptoms of schizophrenia: genes of brain-derived neurotrophic factor (polymorphism Val66Met), the serotonin transporter (5-HTTLPR), type 2A serotonin receptor (T102C), and dopamine D2 receptor (Taq1A). Total number of examined patients with schizophrenia was 57. They were at the age of 10-17 years, males and females, 85.7% of patients (41 patients) had marked symptoms of the disease.
Results: The results revealed the association of the genotype A1/A1 (T) locus DRD2 Taq 1A with phobic symptoms of varying severity in the early stage of the disease, whereas genotypes A2/A2, A1/A2 (T+) at this locus appeared the opposite characteristics ($p \leq 0.05$).
The same tendency was seen in the registration of genes combination such as serotonin receptor 2A (T102C) for the genotype with the presence of the C allele and dopamine receptor D2 (Taq1A) for genotype A1/A1.
The increasing frequency of any of the studied genotypes occurrence in the combination of three or four genes associated with anxiety and phobic symptoms at the manifest stage of schizophrenia in adolescents has been identified.
Conclusion: Potentially, polymorphism Taq1A gene of the dopamine D2 receptor is associated with the risk of anxiety-phobic disorders at the stage of schizophrenia manifest in adolescents.

P.32 Quality of life and aspects related to stress in Brazilian university students

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Aims: This research aimed to examine the manifestation of stress and quality of life in college students on the situations encountered during graduation in classes of freshmen and graduates of the Brazilian College of Psychology.
Methods: This is a descriptive study with objective, quantitative approach with the use of a structured interview willing Sociodemographic Questionnaire containing direct questions and two open-ended questions about 'what is quality of life for you' and 'what is stress for you'. Added to this the application of Scale Flanagan Quality of Life and Questionnaire the Verification of Stress Symptoms. The subjects totaled 63 Brazilian students enrolled in the second half of 2014, of both sexes and aged over 18.
Results: The results of applying the Stress Questionnaire showed that 20.6% of participants reported having no sense stress signals, 27.0% noted little stress, 36.5% with a high stress level and 15.9% at very high stress. Freshmen students (2nd semester) showed higher percentage of high and very high stress, totaling 54.6%, whereas the graduates of the 10th semester showed 24.2% and the graduating semester marked the 11th 21.2%. Signs and symptoms of stress items worth noting the highest occurrence, namely: Tiredness in the morning as if the body were asking "bed" and sleep disturbance, or sleeping too much or too little. Similarly response obtained about what is quality of life, described as follows: "One day a well balanced day between sleep, studies and social life". This research indicates that the freshmen need attention, because 44.8% of these covering 7-9 disciplines reported conflicts as "lack of time to perform all daily and academic tasks".
Conclusions: It entails that the university be established as a locus for the promotion and development of an adequate quality of life and enable the appropriate aspects of academic life under stress interventions.

P.33 Validity of the Seasonal Pattern Assessment Questionnaire in a Sample of the Austrian General Population

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Background: The Seasonal Pattern Assessment Questionnaire (SPAQ) [2] and the Seasonal Health Questionnaire (SHQ) [4] are both widely used screening tools for Seasonal Affective Disorder (SAD). The SPAQ has been used for the majority of epidemiological studies since the 1980s. However, previous studies have assessed the validity of the SPAQ only in clinical samples. Therefore, it was the purpose of the present study to examine the validity of the SPAQ in a large sample of the general population.
Methods: We conducted a telephone interview in 910 randomly selected subjects of the Austrian general population using the SPAQ and the SHQ. The validity of the SPAQ for the diagnosis of SAD was tested against the SHQ, which is based on the DSM criteria [1], as the "gold standard".
Results: The SPAQ yielded a sensitivity of 0.318, a specificity of 0.972, a positive predictive value of 0.219, a negative predictive value of 0.983, a likelihood ratio positive (LR+) of 11.302 and a likelihood ratio negative (LR-) of 0.702. Kappa (± standard error) was 0.237±0.800, and Spearman rho (± SE) was 0.242±0.810. Employing receiver operating characteristic (ROC) analysis, the area under the curve (AUC) was 0.645±0.70.
Conclusions: Our results replicate the findings of Mersch et al. [3] in a much larger sample of the general population. We found that the SPAQ shows excellent specificity but low sensitivity. Because of this reason the SHQ should be preferred over the SPAQ as a screening instrument for SAD. However, the SPAQ is still indispensable when screening for subsyndromal SAD.

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P.34 Trait Anxiety as risk and moderator factor of severity symptoms in schizophrenia and panic disorder: a cross sectional case-control study.

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Background: Some personality dimensions can be taken to represent a proneness toward developing mental disorders. Recent studies have shown neuroticism strongly correlates with general distress/negative affectivity symptoms as depressed mood, anxious mood and worry. Other traits such as harm avoidance are related to anxiety disorders and schizotypal traits have been associated with schizophrenia.
Some studies have described high levels of state and trait anxiety in anxiety disorders, but there is no evidence about the role of these variables as risk factor to develop specific mental disorders.
Aims: The aim of present study is to compare trait anxiety levels in clinical population and healthy controls and to analyze the association between trait anxiety and schizophrenia and panic disorder diagnosis.
Methods: A consecutive sampling was realized in mental health services of the Parc de Salut Mar. We recruited 51 patients who met schizoprhenia diagnostic criteria. 27 subjects fullfilled criteria for panic disorder based on Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). The fourth group was formed 31 healthy controls. Clinical and psychopatological interview was performed by clinicians using Structured Clinical Interview for DSM Disorders (SCID-I) and State-Trait Anxiety Inventory (STAI-R). We also included Panic and Agoraphobia Scale (PAS) and Possitive and Negative Syndrome Scale (PANSS) in order to measure sympton severity in panic and schizophrenia groups. ANOVA, Odds Ratio, and correlation analysis were realized with SPSS-18 statistical software.
Results: There are significant differences between groups in T-Anxiety levels. Post hoc analysis show significant higher level of T-anxiety in schizophrenia group and panic disorder group than in healthy subjects. Odds ratio revealed significant higher rates of schizophrenia and panic disorder in subjects with trait anxiety scores over percentile 75. We find significant correlations between trait anxiety and panic attacks severity in panic disorder group and possitive psychotic symptoms in schizophrenia group.
Conclusions: The results sugest that trait anxiety can be consider a relevant variable to take into account as a factor involved in psychiatric symptoms severity and development

P.35 PTSD prevalence in hospitals personnel

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Introduction: PTSD is a common anxiety disorder resulting from experiencing severe trauma. Nurses experience many stresses in hospital setting and are prone to developing PTSD. We performed this study in order to determine prevalence of PTSD in nurses working in university hospitals, Fasa, Iran.
Materials and Methods: A cross-sectional study in which 140 nurses working in hospital were chosen as study sample. PLC-C questionnaire was used. Nurses were divided into 6 groups according to the ward where they worked: Cardiac, Pediatric, Internal, General Surgery, ICU, and Emergency Department.
Results: We found the prevalence of PTSD to be 48% in our study. PTSD prevalence was higher in 3 wards: Emergency Department 62.5%, Pediatrics 59.1%, and Cardiac wards 58.4%. Prevalence of PTSD did not correlate with age, years at work, marital status, and wards where nurses worked.
Conclusion: We found that prevalence of PTSD were high in our study group comparing with previous studies. It is very important to provide enough support for nurses in order to prevent mental illnesses including PTSD.

P.36 Experimental assessment of the possibility of rapid non-pharmacological diagnosis of light or covert alcohol intoxication

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Currently there is a problem of pre-shift control at a number of enterprises including not only the identification of persons with severe functional health disorders, but also a kind of "doping control" for a number of professional groups associated with increased risk and high level of responsibility.
Objective: to investigate the possibility of rapid non-pharmacological diagnosis of light or covert alcohol intoxication.
Research methods. Studies were carried out on volunteers, before and after toxic stress (intake of diluted ethyl alcohol of 40 volume % - 25, 50, 75 ml). Traditional methods of assessment of central nervous, cardiovascular, neuromuscular systems were used and additionally a mathematical analysis of heart rate variability was conducted.
Results and discussion. It was found that the traditional examination methods of body reactions to alcohol stress do not provide uniform and adequate dynamics, and as a consequence cannot be a universal integral criterion. At the same time indicators of heart rate mathematical analysis are of involuntary nature and can be controlled by monitored subjects least of all and can serve as an objective criterion of the degree of emotional stress, including the body reaction to toxic (alcoholic) stress. The **indicator of activity of regulatory systems** (**IARS**) [R.M. Bayevsky, O.I. Kirimsov, S.Z. Kletskin, 1984] was used as a basis for calculation of the integral indicator. Designed diagnostic algorithm allowed the assessment of the level of body adaptation to the production stress, and at the same time the degree of toxic (alcoholic) stress. It should be noted that the method does not provide a completely reliable result - "pass" or "fail", but it allows a pre-shift control to be conducted in order to identify "suspicious" individuals with operational overwork or alcohol intoxication so that the "at risk" groups can be directed to medical service for a final decision on suitability. Thus, the possibility of rapid non-pharmacological diagnosis of light or covert alcohol intoxication in terms of mathematical analysis of heart rate was experimentally substantiated.

P.37 Effects of Cognitive Behavioral Therapy on Empathic Ability in Patients with Chronic Pain

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Background/Aims: Cognitive behavioral therapy (CBT) is an effective psychosocial treatment for patients with chronic pain. These patients also display impaired empathic ability, but despite the effectiveness of CBT for chronic pain, no studies have

investigated the effects of this treatment on their empathic abilities. Thus, the present study aimed to determine the effects of CBT on the empathic abilities of patients with chronic pain.
Methods: This study recruited patients with chronic pain from the psychiatric day clinic of Seoul National University Hospital and assessed their empathic abilities prior to and after CBT using the Interpersonal Reactivity Index (IRI). The patients received eight intervention sessions over the course of one month. The patients continued to receive routine care throughout the study. Additional symptoms were assessed using the Short Form McGill Pain Questionnaire (SF-MPQ), the Beck Depression Inventory (BDI), the Beck Anxiety Inventory (BAI), the World Health Organization Quality of Life Scale Abbreviated Version (WHOQOL-BREF), and the Scales for Suicide Ideation (SSI).
Results: A total of 26 participants (12 males and 14 females) were included in the present study. Prior to CBT, pain severity that assessed by SF-MPQ significantly related to the IRI-EC (Empathic Concern) subscale scores (r=-0.451, p = 0.021) and the relation remained significantly when adjusted for gender, age, education years and marital status. Following CBT treatment, there was a significant increase in the IRI-PT (Perspective-Taking) subscale scores (p = 0.004) and significant decrease in the IRI-PD (Personal Distress) subscale scores (p = 0.013) in total participants. MPQ scores was increased significantly (p = 0.021) but there were no changes in the other scales.
Conclusions: The present study demonstrated that the empathic ability of chronic pain patients can be improved by CBT, regardless of pain improvement. This finding suggests that CBT is a helpful treatment modality that can improve the interpersonal relationship functioning of chronic pain patients.

KEY WORDS
Chronic pain, Cognitive Behavioral Therapy, Empathic ability

Conflicts of interest: none declared.

P.38 Prediction of bipolarity among patients with major depressive disorder

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Background: In terms of treatment-resistance depression(TRD), bipolar depression(BPD) locates at the important position. In the case of bipolarity of patients who visit clinic with major depressive disorder(MDD), course of improvement, symptoms, and psychological examination are used to clinically predict their bipolarity. In this research, our purpose is to use near-infrared spectroscopy (NIRS) as a biomarker to predict bipolarity. The characteristics of NIRS are objective, visualization, short-period, and non-invasive.
Aim: We collected the data of 21 MDD patients who visited clinic to examine DSM-5 and waveform of NIRS. Aim is to predict the bipolarity in patient with Major depressive disorder by using NIRS.
Method: We have examined the patients with MDD, and compared and contrast their bipolarity by looking at symptoms, scale, and comorbidity. Sleep loss, suicidality, agitation, mood swing, and physical painful symptom(PPS; observed as residual symptoms that known to the factor of bad prognosis) are observed as symptoms. Bipolar Spectrum Diagnostic Scale(BSDS) is used as a scale. Comorbidity is also the factor to predict the bipolarity. Also, family history, more than 3 times of episodes, and age of onset(before age of 25) are observed since these are known factors to predict BP as well.
Result: NIRS shows the BP waveform for the patients with bipolarity when they first visit clinic as MDD. NIRS can biologically indicate the bipolarity. BP is one of the causes of TRD. It is difficult to identify BP at the first clinical examination. Specific symptoms, BSDS, HCL32, Bipolar Index can be the clues to observe bipolarity, but there are no specific biomarker. In this case, we have collected the data to prove the correlation between NIRS and bipolarity criteria, and obtained the result that the NIRS can be the biomarker of bipolarity.
Conclusion: Use of NIRS when starting treatment of depression can be the biological biomarker to observe bipolarity.

P.39 Trajectories of depression symptom improvement and associated predictor analysis: An analysis of duloxetine in double-blind placebo-controlled trials

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Background/Aims: In the treatment of major depressive disorder (MDD), it is not fully understood how individual symptoms improve over time (represented as "trajectory") in remitters. This study aimed to compare symptom trajectories, as measured with the 17-item Hamilton Depression Rating Scale (HAM-D17), in remitters and nonremitters.
Methods: This analysis is based on 10 placebo-controlled, randomized, double-blind trials of duloxetine (40-60 mg/day) for the treatment of MDD from baseline up to week 8. Remission was defined as a HAM-D17 total score ≤7 at week 8 (last observation carried forward). Trajectories of HAM-D17 items were assessed by a mixed model repeated measures analysis for treatment and remitter-nonremitter comparisons. Cluster analysis of the trajectories was performed by factor analysis. A predictor analysis using HAM-D17 was conducted by logistic regression.
Results: There were 1555 patients in the duloxetine group (489 [31.4%] remitters) and 1206 patients in the placebo group (290 [24.0%] remitters; P<.0001). For most items, the difference in symptom trajectories between remitters and nonremitters appeared at early time points and increased over time. Treatment response trajectories were very similar for duloxetine and placebo remitters, while duloxetine nonremitters improved more than placebo nonremitters. For duloxetine remitters, we found 3 trajectory groups of HAM-D17 items which showed the same pattern of cluster categorization at all time points (week 1, 2, 4, and 8). For the majority of HAM-D17 items, improvement in individual items at week 1 or 2 was significantly associated with remission at week 8. At week 1, the highest odds ratio (OR) was demonstrated by item 8 (retardation, OR=1.58, 95% confidence interval [CI]=1.34-1.87), followed by item 7 (work and activities, OR=1.53, 95% CI=1.34-1.75), and item 1 (depressed mood, OR=1.46, 95% CI=1.29-1.66).
Limitations: Remitter/nonremitter groups may change if judged after week 8.
Conclusions: Early monitoring of some symptoms of depression, especially on retardation, work and activities, and depressed mood, may prove useful in guiding treatment decisions.

P.40 Usage of bright light therapy by resident physicians

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Background: This is the first study to investigate the usage of bright light therapy (BLT) in resident physicians (general practitioners and psychiatrists) and to compare these findings to earlier studies, which have investigated the application of BLT in psychiatric hospitals [1, 2].

Methods: A questionnaire was sent by mail to 400 randomly selected resident doctors in Austria. We made sure that the sample was equally well representative of general practitioners and psychiatrists, health service doctors and private doctors, physicians in cities and in the country as well as male and female doctors. Non-responders were asked to answer the questionnaire by phone and by email. We achieved a response rate of 27.7%.
Results: BLT was generally recommended by 67.3% of all physicians (by 91.6% of psychiatrists but only by 46.6% of general practitioners). Recommended location of treatment was patients' home in 90.0%. Physicians were asked, whether they believed BLT to be an appropriate treatment for different disorders: 94.2% thought so for seasonal affective disorder (SAD), 93.3% for subsyndromal SAD, 60.6% for nonseasonal recurrent major depressive disorder, 35.6% for jetlag syndrome, 35.6% for chronobiological problems with shift work, 22.1% for insomnia, 13.5% for premenstrual dysphoric disorder, and 10.6% for behavioural and psychological problems in Alzheimer's disease.
Conclusions: Our results indicate that BLT is regularly employed by resident physicians, especially by psychiatrists. The results found in resident physicians are comparable to previous findings in psychiatric hospitals: Fischer et al. [1] found that BLT was used in 69.8% of all psychiatric hospitals in Austria, Germany and Switzerland. However, there is still a potential for the application of light therapy in indications apart from depressive disorder.

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P.41 Hospitalization causes anxiety and makes it difficult to diagnose the patient
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Background: The fact remains that anxiety is a frequent concomitant of somatic illness or that it may masquerade as somatic disorder. Studies in different countries and clinics have shown that most patients accompany their disease with strong emotions especially when they go to the doctor. Potentially of hospitalization, is a strong reason to justify higher level of anxiety.
Materials and methods: Were interview 100 patents with different diagnosis that have received service at primary care and 100 people without any diagnosis as a group control (May-October 2010). The Hospital Anxiety and Depression Scale (HADS) was used like a clinical instrument to quantify anxiety severity
Results: From the patients involved 23 % of them had a high anxiety level (potential cause for concern). 31 % moderate anxiety. Only 6 % in group control had a high anxiety level and 9 % cases in the limits. This considerable difference shown that hospitalization strongly influences the development of anxiety. The level of anxiety is influenced by the type of the disease. The patents with oncologic and cardiologic diagnosis had a higher level of anxiety than others.
There's a close connection between the anxiety and age, but it is not related with the sex, marital status and academic level of the person.
Conclusions: The opportunity of hospitalization is a strong reason to justify the height level of anxiety, tested by HADS. The physician will be helped and will make is job easier if knows the anxiety of hospitalization level in patients, that why

P.42 Acromegaly Presenting with psychotic symptoms without neurological signs
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Case Report
Cases where pituitary tumor is presented first with psychiatric signs are very rare.
Objective: To describe a rare case of Acromegaly presenting as psychotic disorder without neurological signs, in a 19 years old boy.
Method: Single case report.
Results: We describe the case of a19 years old boy, that was taller than his peers and had started to grow his hands. He suddenly presented with an acute psychotic episode. He presented with persecutory delusions, perceptual abnormalities, disorganization and marked fluctuation in his behavior, he showed marked emotional liability, fluctuations in orientation and psychotic symptoms in the form of grandiosity, persecutory delusions and delusional misidentifications. At times, he was seen talking to himself, although he denied hearing any voices. There was no impairment of consciousness. His mood was irritable. An urgent CT and subsequent MRI scan revealed a pituitary macro adenoma, extending into the cavernous sinus. The initial diagnosis of prolactinoma was revised to acromegaly. His symptoms responded to combination of olanzapine and valproic acid, followed by trans sphenoid resection of the adenoma.
Conclusions: This case highlights the need for investigation, especially of neuroimaging, in atypical presentations of psychosis, which may be first manifestation of rare disorders like acromegaly. Despite a lack of information regarding the path physiology, this particular case emphasizes the importance of ruling out an organic cause for atypical presentation of psychosis

P.43 The Interaction Between Anxiolytic Drugs and Energy Drinks
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Background/Aim: The effect of energy drinks on the patients under anxiolytic drug therapy is not clear. Energy drink is a type of beverage containing stimulant drugs, chiefly caffeine, which is marketed as providing mental and physical stimulation and can be abused by people. They are easy to reach and can be consumed by anyone. Therefore we investigated the interaction that may occur when anxiolytic drugs are used in combination with energy drinks (ED).
Method: Female Balb-C mice were housed in group of six. The effect of both low and high energy drink doses on mice treated with an anxiolytic drug (Alprazolam 0.5 mg/kg, I.P.) were investigated. Motor coordination was evaluated by performing the Locomotor Activity (LMA) test, and the Elevated Plus Maze (EPM) test was used to determine the level of anxiety.
Results: Energy drinks significantly decreased the locomotor activitity counts in only high doses of ED groups, but not low doses ($p > 0.05$). The effect of both high dose (12 ml/kg) and low dose (4 ml/kg) ED on the explorative behaviors of mice in the EPM test, assessed by the time spent in the arms. Low dose ED significantly ($p < 0.05$) decreased the duration of time spent in the open arm and increased the duration of time spent in the closed arm as compared with the control (oral water), which suggests anxiogenic property. Both low dose and high dose ED did not change the effects of treatment with alprazolam in the open and closed arm.
Conclusion: High dose energy drink exposure decreased LMA and low dose energy drink showed anxiogenic properties in mice. Concomitant use of alprazolam and energy drinks, decreased the anxiolytic effect of alprazolam. Thereby patients using energy drinks with anxiolytic drugs may encounter insufficient drug therapy.