THE XTH NATIONAL CONFERENCE OF BIOLOGICAL PSYCHIATRY AND PSYCHOPHARMACOLOGY. CRAIOVA, MARCH 22-25, 2017

Abstracts

ORAL PRESENTATIONS

ROLE OF NEUROPROTECTION IN THE PRESERVATION OF THE COGNITIVE RESERVE IN ALZHEIMER'S DISEASE
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The pathogenesis of Alzheimer's Disease assumes two models. The first involves the genetic spectrum and is characterized by early onset and rapid cognitive decline. The second relies on a pluri-factorial vulnerability, where the role of genetic factors is emphasized by vascular and metabolic dysfunction and the collapse of the neurobiochemical transmission. Clinically, the latter is characterized by the late onset, while cognitive impairment depends on the preservation of cognitive reserve, which, in turn, is tightly interdependent with the vulnerability factors mentioned above.

Unquestionably, the progression of dyscognitive and deteriorative elements is enhanced by the interference of dysprotective evolutionary moments and consequently, the cognitive structures and brain functioning lose the capability of defense against the neurodegeneration. In this context, the premorbid psychiatric disorders involving a multi-systemic pathogenic model, especially elderly depression, have a particular dimension.

Keywords: neurodegenerative model, multifactorial vulnerability, vascular dysfunction.

SCHIZOPHRENIA AS A DISORDER OF THE SELF
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Schizophrenia has ever been an ill-defined concept, a hardly categorized mental disorder in a certain nosological group. In both clinical practice and in the research area we have been used an operational definition of schizophrenia that includes descriptive and a theoretical criteria from Diagnostic and Statistical Mental Disorder (DSM), actually DSM-5.

However, extensive studies in the area of schizophrenia highlighted “self-disordered” anomalies, more precisely one of “self” categories, the “minimal self”. Loosening the self-unity leads to different bizarre feelings relating to body functions, temporality, “not being in the world” and the Schneider’s “first rank” symptoms.

The “self” structures that have been emphasized by the cranial nuclear magnetic resonance (cranial NMR) at healthy subjects contain fronto-temporo-parietal neural circuits. These studies showed cortical structures implicated in “sense of self” elaboration as ventral medial and dorsal medial prefrontal cortex, anterior and posterior cingulate cortex, superior temporal sulcus, inferior parietal cortex.

In schizophrenia, in a resting state NMR studies demonstrated an aberrant functional connectivity in the prefrontal cortex and between the medial prefrontal cortex and posterior cingulate cortex. Although, in the recent years, in schizophrenia have been many evidences of neural circuits alterations in spite of unclear mechanisms relating to psychosis and other anomalies.

Keywords: schizophrenia, self, minimal self.

NEUROVASCULAR LANDMARKS IN THE EVALUATION OF THE ORGANIC LESIONS OF THE DENTAT GIRUS AT THE PATIENTS WITH SUICIDAL BEHAVIOR
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In this paper, we try to follow the neuro-vascular correlation from gyrus dentatum (the dorsal extension of hippocampus), in cases of death by mechanic asphyxiation after hanging.

After autopsy we have taken hippocampus fragments from people between 16 and 85 years old. The fragments were processed by hematoxylin and eosin technique. Besides neurovascular changes related to age, particularly atherosclerotic changes, we found also perivascular neurolysis in dentate gyrus.

The role of paleocortex in affective and emotional behavior and also in memory is well known. From paleocortical structures, the hippocampal complex has a different structural and functional dynamics in ontogenesis. According to this information, we consider that these associated lesions are not random.

In conclusion, the study of the hippocampus is a first step for a new research of the pathogenesis of neuropsychiatric symptoms.

Keywords: dentate gyrus, hippocampus, hanging, vascular genesis.
THE ROLE OF THE PSYCHIATRIST IN THE PSYCHIATRIC FORENSIC EXPERTISE
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In Romania, the forensic expertise is institutionalized, forensic institutions being the sole provider of medical evidence for justice. Given that expertise offers fundamentals for establishing criminal or civil liability, this activity is carried out only in boards of expertise. Both forensic doctors and psychiatrists have the status of official experts when appointed to perform forensic work. Tasks of the members of the forensic psychiatry board are distinct, both individual and common ones. Irrespective of the individual responsibilities thus not only the one who drafted the report, the legal responsibility is individual for each board member. By signing the report by all its members, it acquires legal force of evidence, subject to all legal provisions in this regard.

Keywords: forensic expertise, expert, board, responsibility, competence.

PTSD – VICTIM SYNDROME – COMPLEX POST TRAUMATIC STRESS SYNDROME – SPECIAL PSYCHOTRAUMATOLOGY – VICTIMOLOGY.
PSYCHIATRIC FORENSIC PARTICULARITIES
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Introduction: European Commission recommends precise attention to all causes involving psychotraumatology's and victimology's particulars. This report shows a meta-analysis that can be applied in many psychiatric-forensic issues by offering an important contribution in solving lots of cases about granted privileges and not only.

Discussions: The report starts from the limited experience on this subject in our country that leads to many wrong ways of medical approaching and legally approaching also.

The authors specify/mark the necessary notions about a forensic expertise and its subject – the victim: psychotraumatology, victimology, psychotrauma/psychotraumatic experiences, reaction, forensic reactions, psychotraumatic process, post-trauma status, predisposition, biological substrate, primary victim, secondary victim, direct/indirect consequences, short/long consequences.

Through criteriological delimitation of Posttraumatic Stress Syndrome from Complex Posttraumatic Stress Syndrome are outlined forensic expertise's dilemmas.

Conclusions: In our current socio-historical context, psychotraumatology and victimology's particularities require certain attention and commitment to the way of training the young specialists in psychiatry and forensic medicine.

Keywords: psychotraumatology, primary victim, secondary victim.

NEW PHARMACOLOGICAL APPROACHES IN OBESITY
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Background: Obesity is a frequent comorbidity in psychiatric patients and stands as a major public health problem in many countries. Obesity is associated with higher mortality and lower quality of life, but it also reduces therapeutic adherence and increases the risk for organic complications. Pharmacological substrate of weight gain is related to known mechanisms – like H1 and 5HT2C receptors antagonism of several psychotropics, but also to other, largely unknown, biological variables.

Methods: We searched medical databases (MEDLINE, PubMed, Cochrane, EMBASE) for guidelines and expert consensuses focused on the pharmacological treatment of obesity issued between 2000 and 2017.

Results: Naltrexone plus bupropion, liraglutide, lorcaserin, orlistat, phentermine plus topiramate are the current pharmacologic options for the treatment of obesity. According to American Association of Clinical Endocrinologists and American College of Endocrinology Comprehensive Clinical Practice Guidelines for patients with obesity (2016) potential benefits of these treatments outweigh the risks for the chronic treatment of the disease. The above-mentioned drugs cover a large area of pharmacodynamic properties, from 5HT2C antagonism (lorcaserin), glucagon-like peptide-1 receptor agonist (liraglutide), combination of norepinephrine and dopamine reuptake inhibitor and opioid antagonist (bupropion plus naltrexone), lipases inhibitor (orlistat), to a combination of sympathomimetic amine and a very complex anticonvulsant (phentermine/topiramate).

Conclusions: There are several well-documented options for the pharmacologic treatment of obesity, with various pharmacodynamic mechanisms. These agents should be integrated, according to the guidelines in a life-style therapy and not administered by themselves. Caution should be mentioned regarding specific adverse events and contraindications of each of these pharmacological agents.

Keywords: obesity, endocrinology, H1 and 5HT2C antagonist, glucagon-like peptide-1 receptor agonist (liraglutide), combination of norepinephrine and dopamine reuptake inhibitor and opioid antagonist (bupropion plus naltrexone), lipases inhibitor (orlistat), to a combination of sympathomimetic amine and a very complex anticonvulsant (phentermine/topiramate).

ALZHEIMER’S DISEASE – MOLECULAR BIOLOGY AND NEUROPATHOLOGY
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Alzheimer’s disease is the most common and most important degenerative disease of the central nervous system, harboring a huge social impact. Approximately 50% of all people aged over 70 years suffer from this disease. If mild and insidious impairment of cognitive
function is usually the most common form of disease onset, ultimately it evolves towards a generalized collapse of the brain function.

From the moment when Alois Alzheimer, a Bavarian psychiatrist presented for the first time the clinical and neuropathological features of the presenile dementia in a patient of 51 years old, describing in 1906 senile plaques and neurofibrillary tangles, it began the controversy that continues to persist even today in the study of the pathophysiology of Alzheimer's disease. Recently, there were developed transgenic animals expressing the mutations that cause the disease in humans and these animals also develop a resembling neuropathology. The disease is characterized by the presence of suggestive morphological abnormalities and of a variety of associated pathologies. This spectrum of changes is dominated by the presence of the amorphous material called "amyloid" stored almost anywhere in the parenchyma and neurofibrillary tangles, made of microtubule-associated tau protein aggregations in the neuronal bodies and neuronal extensions.

Although Aβ peptide has been identified as the main component of amyloid plaques, the conditions responsible for their aggregation in the brains of the patients are not yet fully understood.

This presentation aims to review the main morphopathological data, molecular biology and genetics of Alzheimer's disease.

**Keywords:** Alzheimer's disease, amyloid plaques, morphopathology.

**PULMONARY THROMBOEMBOLISM IN A PATIENT RECEIVING PALIPERIDONE - A CASE REPORT**

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Antipsychotic treatment, both typical and atypical, has been linked to higher risk of venous thromboembolism, including PTE, which is potentially fatal cardiovascular disease. Clozapine was associated with the highest risk of VTE, followed by ziprasidone, olanzapine and risperidone [3], while aripiprazole and quetiapine were not found to increase the risk.

Experimental studies have shown that paliperidone led to changes in the serum levels of coagulation factors VIII and IX in rats. Therefore, paliperidone may be causing thromboembolism in a dose-independent manner.

We would like to report the case of a 44-year-old woman, sound editor, single, who was admitted to our hospital for a first episode psychotic disorder. Treatment with paliperidone (6 mg/d) was initiated, and the dose was increased after 3 days to 12 mg/d, leading to partial resolution of the psychotic symptoms. The patient had a history of total hysterectomy due to endometriosis 6 years ago and consumed 25 cigarettes per day, but had interrupted smoking when admitted to our hospital. After 3 weeks of treatment, the patient was referred to the department of cardiology with complaints of thoracic pain and hemoptysis. Based on the results of computed tomographic thoracic angiography and plasma D-dimers level, the diagnosis of PTE was established. Standard anticoagulant treatment was started and the patient recovered immediately. Her paliperidone treatment was discontinued and changed to aripiprazole up to 20 mg/d, but her evolution was not satisfactory. The patient was recently readmitted for a suicide attempt, in the context of acute psychotic symptoms.

This case report suggests that clinicians should consider antipsychotic drugs, including paliperidone, as a potential risk factor for PTE. In our patient, this also led to limited therapeutic options for her recurrent psychotic symptoms. Controlled studies are needed to further elucidate this adverse effect and to determine the possible predisposing factors and the biological mechanism involved.

**Keywords:** pulmonary thromboembolism, antipsychotics, side effects.

**MEDICAL ASSISTANCE IN DYING: SPECIAL ISSUES FOR PATIENT WITH MENTAL ILLNESS**

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Background: Medical Assistance in Dying (MAID) is now legal in many jurisdictions for competent adults who have intolerable suffering and/or have a terminal illness with a short prognosis. Mental illness can be a source of suffering of these individuals, but it can also affect their capacity to make medical decisions. Clinicians and psychiatrists in particular, need to understand how to assess patients with mental illness who are requesting MAID, to determine the impact of their mental illness on the MAID request.

Methods: Psychiatric disorders can be a primary indication for MAID in parts of Europe, and recent published case series from Belgium and the Netherlands have generated strong responses from the psychiatric community. Patients dying of terminal illness who request MAID often have symptoms of depression or anxiety, but psychiatrists are rarely involved in their care. Medical Assistance in Dying is now legal or will like soon be legal in many jurisdictions around the world. Psychiatric illness can impact a MAID request in many ways: psychiatric illness can be a cause of suffering in patients dying of a physical illness; psychiatric illness may compromise decisional capacity for a patient who is requesting MAID; and in some jurisdictions, psychiatric illness itself can be a primary indication for MAID. Psychiatrist are often not consulted for patients who request MAID, legal or professional guidelines often mandate a psychiatric assessment wherever mental illness is present or suspected in a patient who requests MAID.

Results: There is a currently no "gold standard" method for psychiatrists to assess and document decisional capacity in patients with mental illness who request MAID. The psychiatric community would benefit from clear professional standards in this area, and educational initiatives to help practitioners achieve this standard.

Conclusions: Psychiatrists may be helpful in assessing decision capacity, but documentation of capacity
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assessments could be improved. There is a broad need to develop educational resources to train current and future physicians about MAID.

MAID represents an ethical and clinical challenge for psychiatrists in a variety of ways. As more jurisdictions legalize MAID, the psychiatric community will need to be prepared to meet these challenges with robust clinical standards and educational programs to ensure the highest standards of care of patients.

**Keywords**: active, assisted, euthanasia, mental competency, psychiatry, suicide, voluntary.

**NEUROBIOLOGICAL CORRELATES OF SEVERE ANTISOCIAL ACTS IN THE EVOLUTION OF SCHIZOPHRENIA**

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The incidence of severe antisocial acts (murder, attempted murder, violence) is correlated by the biological models with the existence of dysconnectivity between frontotemporal and temporal-amygdala structures. Dysconnectivity may be linked to neurodevelopmental abnormalities, or secondary to the inadequate psychotropic therapies, in which the dopamine deficit induced by first generation antipsychotic enhances the glutamatergic activations, determining structural alterations of neurons and astrocytes in the frontal cortex, their dysconnectivity with dopamine controlled amygdala structure.

Early diagnosis and appropriate therapy could be important factors for the prevention of forensic accidents in the evolution of schizophrenia, which would diminish the negative social impacts and mitigation stigma for these patients.

**Keywords**: dysconnectivity, hyper-glutamatergy, early diagnosis and treatment.

**QUALITY OF LIFE AND SOCIAL REINTEGRATION IN SCHIZOPHRENIA**

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The concept of quality of life (defined by the World Health Organisation as people's perception of their position in life compared to their goals and system of values, which have accepted and assimilated in terms of the decisions they have to take) and the necessity to quantify it have been as well introduced in the assessment of those diagnosed with major psychiatric disorders.

Constant evaluation of the patient's quality of life has become extremely necessary for the assessment of physical, psychological and social effects of the state of illness, the subjective perception of this state, the effects of the therapeutic process upon everyday life and also for determining the patient's needs concerning psychological and social support during the evolution of this disease.

The tools for assessing and quantifying patients' quality of life and their systematic use help healthcare providers to offer the best therapeutic options, to maintain a proper communication with the patient in order to provide better information regarding the possible side effects of the various medical procedures, to monitor the evolution of the disease therefore, efficient healthcare packages can be provided, based on gathered data.

From the point of view of ensuring the quality of life for patients, several studies have shown that one of the targets of the therapeutic management is represented by the social reintegration of the mentally ill patient after an acute episode of illness, frequent or long term hospitalizations having a negative influence upon their decision-making capacity and self-control ability in social context.

Social reintegration has become a major goal in the therapeutic process, being perceived as the time spent by the schizophrenia affected person in the midst of the community, time during which he can ensure his primary needs by himself and especially fulfil his social goal seen as a sum of the social function, here including social activity and conduct, drafted and imposed by society and conditioned by the place the individual occupies among the social relations system.

**Keywords**: schizophrenia, quality of life, reintegration.

**ASSESSING VULNERABILITY TO STRESS**

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Vulnerability to stress is the increased sensitivity to psychogenic stress agents, characteristic to certain individuals who react excessively, by developing reactions to stress.

Vulnerability to stress is an important premise for the emergence of neuroses, reactive psychoses and psychosomatic diseases.

The objective of the study: the impact of social, biological factors, and psychological types upon the vulnerability to stress.

Material and method: A cross-section study was conducted on a sample of 216 people (112 women and 104 men) aged between 18 and 60 years. These were selected by simple random sampling method on a voluntary basis, freely expressed consent and minimum inclusion and exclusion criteria. The cases were evaluated during the January to March 2016 period, using as independent variables: age, sex, educational level, marital and socio-professional status.

The parameters analyzed were: psychological types (introvert-extrovert); social factors: behavioral factors (smoking, excessive alcohol consumption, energy drinks), lifestyle, social support, income, faith and biological factors (health, weight).

Instruments used: Miller and Smith stress vulnerability scale.

Results: Data were statistically analyzed and the following were found:

1. Depending of the independent variables, vulnerability to stress is higher in women, in people aged between 35 to 49 years and 50 to 60 years, in people with low educational
and socio-professional status; in terms of family status singles are more vulnerable to stress.

2. In terms of the analyzed parameters, introverts with an unbalanced lifestyle, sedentary, without social support, overweight and in poor health are most vulnerable to stress.

Conclusion: An understanding of the concept of stress and knowledge of individual vulnerability to stress may lead to the acquisition of skills for managing stress by changing attitude and lifestyle.

Keywords: vulnerability to stress, psychological types, social factors, behavioral factors and biological factors.

MOBBING. TRAUMATIC POTENTIAL. PSYCHIATRIC FORENSIC STATEMENTS
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Introduction: Mobbing concept defines, in mass-media's point of view, psychological harassment at work. From a psychiatric point of view, it exemplifies a specific behavior with a psychologically traumatic effect on a certain person, chosen as victim. Epistemological studies are very few, in our country, practically, missing.

Discussions: Mobbing's pathogenic mechanism is a debated problem for getting a particular result of blaming the victim (“blaming-the-victim-solution”) and also the consequences of psychotrauma process. Pathogenic mechanisms, pre-clinical and clinical symptoms and medical methods of preventing long-term consequences are demonstrated by meta-analytical studies and reported through the author's clinical cases in her own medical practice. Psychiatric forensic connections (related to law) are the most harmful consequences of 'mobbing'. Without knowing very well the meaning of the concept, there are many unclear conclusions about the main targets of the expertise and their answers, ignoring the psychotrauma.

Conclusions: Till finding the best way of managing the civil cases where jurisprudence is involved regarding psychotraumatology, in general, and 'mobbing', in particular, the author recommends: certain attention and commitment in training the young specialists and a complete analyze of each case, in every forensic report.

Keywords: mobbing, psychiatric forensic expertise.

THE ROLE OF THE HERPES ZOSTER INFECTION IN PRECIPITATING THE COGNITIVE DETERIORATION OF ALZHEIMER'S DISEASE
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Herpes infection has a significantly increased frequency with age, occurring in the elderly amid decreasing of the immune defense capacity. Vulnerability to Zoster infection and its occurrence is considered by some authors as a trigger that for neurodegeneration in Alzheimer's disease within different pathological conditions, and for rapid transition from Syndrome Mild Cognitive Impairment (MCI) to cognitive impairment itself. Memantine has efficacy on Zoster virus and its neuroprotective and antiapoptotic type mechanisms suggests a prophylactic possibility on the onset of Alzheimer's disease pathology, by addressing concomitant therapy with memantine and antiviral medication in such patients.

Keywords: viral infection, memantine, anti-apoptotic action.

QUALITY OF LIFE ASSESSMENT DURING PHARMACOLOGICAL TREATMENT IN PATIENTS WITH SCHIZOPHRENIA
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Background: Monitoring of the quality of life in patients with schizophrenia is a very important dimension when social functioning and professional reinsertion are considered as targets of the treatment. Therefore, controlling of positive, negative, behavioral, affective and cognitive symptoms of schizophrenia, defined as main objectives of the current pharmacological treatment in this pathology, should be corroborated with the reflection of these dimensions in the patients' quality of life, as a specific variable.

Methods: Literature research focused upon the psychological instruments created for quantifying quality of life in patients with schizophrenia during pharmacological treatment.

Results: The Short Form 36 items version and the EuroQol (EQ-5D) are the most widely used instruments in patients with psychiatric disorders, although these instruments were not specifically designed for patients with schizophrenia. These questionnaires have good psychometric properties and their use is supported by large number of clinical trials. Lehman Interview for Quality of Life (QoLI) was developed in 1983 for the evaluation of specific needs and prognosis in chronic disorders in patients who are institutionalized. Therefore, QoLI was studied in patients with schizophrenia and other psychotic disorders, and this instrument is considered to be able to monitor patient satisfaction in daily life activities, social relationships, relaxation activities, work, financial safety, legal and health problems.

Conclusions: A number of psychological instruments are used for monitoring changes in the quality of life in patients diagnosed with schizophrenia. While some scales are not specific for this population, QoLI is a well-designed, semi-structured, self-administered questionnaire adequate for patients with schizophrenia and sensitive to changes during pharmacological treatment.

Keywords: quality of life, schizophrenia, EuroQoL (EQ-5D) QoLI, specific needs, prognosis.

RECOMMENDATIONS FOR LONG ACTING INJECTABLE ATYPICAL ANTI PSYCHOTICS IN PATIENTS WITH SCHIZOPHRENIA
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Background: Long acting injectable atypical antipsychotics are useful therapeutic instruments in clinical settings, but differences between them are not well-documented in terms of efficacy and tolerability, due to a significant lack of head-to-head randomized clinical trials. No clear-cut recommendations are included in the latest guidelines that could favor one long acting injectable atypical antipsychotic instead of the other.

Methods: We search through the available electronic databases for differences between the existing long acting injectable atypical antipsychotics, at pharmacodynamic and pharmacokinetic level, in order to verify if specific recommendations could be formulated for each drug.

Results: Pharmacological properties of risperidone microspheres, paliperidone palmitate 1-month and paliperidone palmitate 3-month administered formulations, olanzapine pamoate, aripiprazole monohydrate and aripiprazole lauroxil were analyzed and specific properties were underlined. There are a number of pharmacological properties of these drugs that should be taken into consideration when specific variables are considered, like special populations (d.e. renal or hepatic failure), comorbidities (d.e. obesity, metabolic syndrome), individual sensibility to extrapyramidal adverse events, life-style impact (sedation, weight gain, sexual dysfunctions etc). Of course, therapeutic adherence is the main argument for these formulations, but no study has yet demonstrated that longer action (d.e. 12 weeks or 6 weeks interval between doses compared to only 2 to 4 weeks) of some of the above mentioned formulations are associated with higher adherence.

Conclusions: A relatively wide range of long acting injectable atypical antipsychotics is available, or for some formulations will be soon available, therefore choosing between them in clinical practice should be based on a careful analysis of drugs' specific pharmacological properties and target population characteristics.

Keywords: schizophrenia, long-acting injectable atypical antipsychotic, therapeutic adherence, specific pharmacological properties.

PHARMACOLOGICALLY-INDUCED PSYCHIATRIC COMPLICATIONS IN PARKINSON'S DISEASE

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Parkinson's disease - complex degenerative, multilesional medical condition - frequently includes psychiatric phenomena in the clinical picture, besides the motor symptomatology. The presence of emotional, cognitive and psychotic changes determining the impact on the quality of life, as well as a poor therapeutic response specific to Parkinson. Given the inter-relationship between Parkinson's disease epidemiology, of risk factors, comorbidities, complex neurophysiologic elements, it is difficult to set the optimal pharmacological management of Parkinson. There are several psychiatric manifestations induced by the very antiparkinsonian treatment, among which depression, delirium, obsessive behavior. Even if antidepressants, antipsychotics or even medication for the cognitive improvement of the patient, the results are not as desired.

The anticholinergic medication may determine confusion syndrome upon the sudden discontinuation of treatment in emergency or surgical medical situations. Classical antipsychotics (phenothiazines, butyrophenones) decrease the efficacy of levodopa, since they are antagonists of dopaminergic receptors, generally non-selective or with some selectivity on the D2 receptors. From the atypical antipsychotics, olanzapine and risperidone may worsen the parkinsonian symptomatology, while clozapine and quetiapine proved their usefulness in Parkinson patients, with important antipsychotic effects without worsening Parkinsonian symptomatology.

The wearing-off phenomenon of the levodopa treatment may be confused with side effects of antipsychotic medication. The dopaminergic medication may induce several psychiatric symptoms included in the Parkinsonian psychosis. This is more frequent in elderly patients, with more advanced stages of the disease. Anticholinergics and amantadine are among the antiparkinsonian agents that can induce psychotic phenomena after levodopa therapy, but also dopaminergic agonists and selegiline. Management of Parkinsonian psychosis consists of reducing or eliminating the antiparkinsonian medication in the following order: anticholinergics, amantadine, MAO-B inhibitors, dopaminergic agonists and COMT inhibitors. Levodopa will remain the last, its dosage to be reduced to the minimum ensuring the motility of the antipsychotic treatment. The treatment can be done with clozapine which has a multi-receptor action mechanism, with an efficient minimum dose of 25 mg/day, in one administration. Quetiapine can also be administered, which is less effective than clozapine, but it lacks major side effects. Benzodiazepines can be used also for short periods in acute episodes.

Keywords: antipsychotics, Parkinson's disease, psychiatric complications.

DEPRESSIVE DISORDER IN MULTIPLE SCLEROSIS

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Multiple sclerosis is a neurodegenerative disease that associate multiple psychiatric comorbidities, the most frequent being depressive disorder in its prodrome and cognitive impairment in the late stages of the evolution. Studying the relationship between depression and multiple sclerosis is bidirectional, depression could be prodromal, and through its pathogenic cellular mechanisms emphasizes the progression of specific type elements (plates of demyelination due to the rise of the pro-inflammatory phenomena type and of the cytokine-type aggression) or depression subsequently to cortisone medication in high doses, phenomenon that favors hippocampal atrophy and the onset of the deteriorative type elements. Anticholinergic antidepressants may
enhance cholinergic blockade on the cognitive circuits, enhancing the neurodegenerative mechanisms. Depression may take an organic type in the moment when the development of demyelinating plaques in the frontal cortex is excessive, by setting up an apathy-aboulic form with intense anhedonia, indistinguishable to decrease of cognitive processes. Therapeutic resistance of depression in multiple sclerosis can be a clinical marker for poor evolution with multiple plates and frontal-hippocampal dysconnectivity.

Early diagnosis of depressive disorder and the use of neuroprotective medication among with cortisone therapy can ameliorate the evolution of the neurodegenerative process, increasing the patient's quality of life and improving the functional evolution of the disease.

Keywords: frontal-hippocampal dysconnectivity, hypercortisolemia, cognitive impairment, anhedonia.

MOTIVES AND METHODS FOR SUICIDAL ACTIONS IN CHILDHOOD AND EARLY ADOLESCENCE

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Aim: Presentation of data on suicide attempts and completed suicides among children in Bulgaria for a seven-year period 2009-2015.

Methodological approaches: Our study adopted the standard approach to suicide registration in Bulgaria: information for each case of proven suicide is entered into two specially designated documents developed and approved by the Ministry of Healthcare – “Suicidal act notification” and “Suicidal act chart”. All collected notifications and charts are processed by the regional inspectorates of the Ministry of Healthcare and by the “Mental Health” department of the National Center for Public Health and Analyses. The results are then entered into a software product allowing detection and removal of duplicate data.

Main results: Leading methods of suicide are self-poisoning and cut with stab within girls and among boys self-poisoning and hanging. Leading reasons for self-destructive actions are conflicts with parents and unrequited love.

Conclusion: Suicide remains the most important issue in public and mental health with strong cultural, ethnic and socio-economic determinants. Each of the age groups is characterized by features that allow specific preventive measures in this area.

Keywords: attempts, suicide, children, motives, methods.

CARDIOVASCULAR PATHOLOGY IN MAJOR PSYCHIATRIC DISORDERS - MYTH OR REALITY?

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The relative high incidence of sudden death occurred during antipsychotics or antidepressants therapy suggests an important component of acute cardiac pathology (myocardial infarction, severe rhythm disorders) whose reality is questionable, with two points of view:

1. The existence of cardiac diseases as side-effects of psychotropic therapies - cardio-metabolic syndrome, diabetes and obesity, with the causal relationship between cardiovascular and psychiatric disorders conditioned by the dysmetabolic vulnerability induced through D2 or H1 type receptors blockade. In this first assessment, it becomes important to select the patients and to individualize the pharmacological therapies, based on the pharmaco-genomic predictive factors highlighted by their family history, and strictly monitoring of these patients.

2. The second variant is linked to abnormal neurodevelopment (prenatal dysmetabolic or infection type pathologies, obstetrical trauma with asphyxia and hypoxic hyperglutamatergic encephalopathy) and it is constantly associating vulnerabilities in the coronary vessels (abnormal neurodevelopment of them), with an evident predisposition in various myocardial pathologies, or association with genetic spectrum of the DiGeorge syndrome (22q11.2 deletion), in which the schizophreniform type pathology is associated with congenital heart abnormalities.

Neurodevelopmental abnormalities, according to the precocity of installation of prenatal aggressive factors, can lead to congenital defects, some severe, evident from birth, others less expressed, unknown and ignored, such Botallo foramen or myocardial fiber changes and junction with the specific excitation system represented by ion channels.

Keywords: abnormal neurodevelopment, 22q11.2 deletion syndrome, hypoxic hyperglutamatergic encephalopathy.

PERSONALIZED MEDICINE AND PSYCHOPHARMACOGENOMICS

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Background: Although not a very new concept worldwide, pharmacogenomics seems quite far away from clinical psychiatric practice in our country. Determinations for CYP450 genotype, specific receptors and transporters genetic variants, but also for specific genetic diseases that could impact recommendation of some psychotropics could be useful in clinical settings, in order to increase the response rate and to reduce the risk of adverse events.

Methods: Literature analysis for detecting possible applications of pharmacogenomics in clinical psychiatric setting.

Results: Laboratory kits for CYP2D6 and 2C9/2C19 genotyping were found, and trials that correlated these genetic variants with clinical response were detected. Analysis of serotonin transporter gene is also correlated with clinical response to serotoninergic antidepressants, although the available results are contradictory. 5HT2A and 2C receptors were correlated with various adverse events and clinical effects, therefore further studies for clarifying their genetic variants in relation to drug reactions and psychopathology are needed. Determination
of mitochondrial disorders caused by DNA polymerase Y gene (POLG) is important for prevention of valproate induced liver failure and death.

Conclusions: The path to a personalized psychiatry is still far from being clear, but several milestones are identified, and some important steps could be made in the near future. Pharmacogenetics could offer the key to identify the population at risk for non-response (due to lower blood concentration through metabolic enzymes hyperactivity), toxic reactions (based on higher concentrations, secondary to lower acting CYP enzymes) and other types of adverse events.

**Keywords:** genomic pharmacology, transporters, pharmacogenetics, CYP2D6, CYP2C9, CYP2C19.

### AUGMENTING SELECTIVE SEROTONIN REUPTAKE INHIBITORS IN CASE OF PARTIAL RESPONSE IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER

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Background: Partial therapeutic response to selective serotonin reuptake inhibitors (SSRI) is, unfortunately, quite often detected in clinical practice. Faced with the dilemma “switch or augment”, the clinician should analyze all possible causes of partial response, like low therapeutic adherence, multiple psychiatric diagnosis, organic or toxic interferences, metabolizer genotype status, pharmacokinetic and pharmacodynamic negative interactions, environmental factors, sufficient time for an adequate trial etc.

Methods: Analysis of available data in the literature regarding the efficacy of augmenting strategies in cases of SSRI-partial responders.

Results: Using of buspirone, thyroid hormones, lithium, other antidepressant with a different mechanism of action (like agomelatine, mirtazapine, trazodone, bupropion or venlafaxine), atypical antipsychotic (aripiprazole, olanzapine and quetiapine are the most well studied variants), mood-stabilizer (valproate, lamotrigine or carbamazepine), and benzodiazepine drugs could be tried if patients diagnosed with major depressive disorder have a partial response after 4-6 weeks of maximum tolerated dose of a SSRI agent. Monitoring the adverse events and efficacy is strongly recommended, especially if multiple drugs are concomitantly used, and the duration of the combined treatment should be reduced to minimum.

Conclusions: Multiple options for patients with major depressive disorder partial responders to SSRI are available, and choosing between them is dependent of specific biological and clinical peculiarities, after a careful analysis of factors that could hinder therapeutic response. A close monitoring using psychometric scales is recommended, beside regular clinical observation and structured interview.

**Keywords:** selective serotonin reuptake inhibitors, therapeutic partial response, major depressive disorder.

### INTRANASAL OXYTOCIN AS A MODERN TREATMENT FOR SOME PSYCHIATRIC DISORDERS

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Oxytocin is a nonapeptide hormone which is synthesized in the hypothalamus and is directly projected into other brain areas, where it acts as a neurotransmitter. Recently, several data have suggested that besides the classical roles in parturition and milk letdown, oxytocin could play an important part in the pathophysiology of some psychiatric disorders mainly characterized by impairments in the social functioning. In addition, our group is also lately interested in understanding the role of the oxidative stress in the complex effects mediated by oxytocin at the central level in the aforementioned neuropsychiatric disorders.

**Keywords:** Oxytocin, neuropsychiatric disorders, oxidative stress.

### RISK OF DEMENTIA IN PERITONEAL DIALYSIS PATIENTS COMPARED WITH HEMODIALYSIS PATIENTS

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Cognitive disorders are common in dialysis patients and are associated with significant morbidity. The frequency of these disturbances grows and continues to affect various areas of patient care, such as adherence to treatment and quality of life. The most frequently affected is executive function, essential for planning and carrying out tasks. The impaired executive function is associated with increased mortality.

Although it is known that chronic kidney disease causes dementia, there is also evidence that hemodialysis may accelerate cognitive decline. The cohort studies that use the data from the US medical database system, report that people with chronic kidney disease stage 5 using hemodialysis have the highest prevalence of dementia and the incidence of dementia for people undergoing hemodialysis is 3 times higher compared with general population.

Studies on cognitive decline for people with peritoneal dialysis are fewer and suggest that the occurrence of dementia is lower for these patients compared to those on hemodialysis. Initiating treatment for chronic kidney disease stage 5 with hemodialysis with switching from peritoneal dialysis to hemodialysis increases the risk of dementia, in both short and long-term. Patients switching from hemodialysis to peritoneal dialysis have a much lower risk of dementia than those who remain on hemodialysis. These provisions are consistent with the hypothesis that the lack of hemodynamic fluctuations may reduce the risk of dementia in the long term.

Studies conducted on patients with dementia and chronic renal disease highlights the need for clinicians to regularly evaluate cognitive functions on people with dialysis, early
recognition of dementia helping physicians to adapt the treatment to patients' cognitive abilities. Such prospective studies would be required to include the initial MMSE value and cognitive repeated assessments on dialyzed population to confirm that the hemodialysis affects cognition. A standardized measurement of cognitive status could be included on the registration form of chronic kidney disease stage 5 patients providing a measure of cognitive function base for future analysis.

Keywords: chronic kidney disease, dementia, dialysis.

CORTISOL: A CLINICAL AND PARACLINICAL MARKER OF CHRONIC STRESS, DEPRESSION AND ANXIETY
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Anxiety - depressive disorders are often seen as the most common psychiatric condition related to chronic stress. Chronic stress can induce depression and anxiety through alterations of the HPA axis and immune system. The HPA axis and the immune system are related. Regarding the fact, that usually, HPA axis transmitted impulses, would calm the inflammatory reactions, prolonged hyperreactivity of this way would induce abnormal immune responses with the consequences of anxiety and depression.

Is depression leading to inflammation, or is inflammation leading to depression? We can't tell for sure. The linked mechanism of these two is still unknown, though we can say it can be through a positive - feedback pathway. Depression symptoms can trigger an easily respondent inflammatory reaction, through hormonal changes in HPA axis, resulting in a high sensitivity to infections.

The hormonal response is related to the nature of the chronic stress and with the coping mechanisms of the individual.

Considering the fact that HPA axis is the final way for the most depressive symptoms transmission, new hypothesis are researched regarding the biological aspect of depression. The cytokines response in inflammation is considered. A 24 meta-analysis study of the measured value of seric cytokines, revealed a high level of TNF alpha and IL-6 in depression.

Basal cortisol level - is a crude response parameter, in the evaluation of stress reactions. A correlation between plasmatic cortisol levels and psychiatric history exists in the study of stress reactions. Low level cortisol correlated with psychiatric history, resulted in an introverted personality. Whereas low level cortisol with a psychiatric history, lead to an expanded personality. Impulsivity is found in a wide range of psychiatric disorders and is characterized by the inability to resist the urge to engage in harmful behaviors directed towards the self and/or the others.

In addition to that, the most recent studies involving psychiatric patients have not only shown an increased prevalence of obesity among them, but also a neurobiological relationship between metabolic disorders, weight gain and impulsive behavior.

Monoamines and acetylcholine play a key role in the development of mental disorders, but they also modulate...
the activity of hunger and satiety centers in the hypothalamus. Moreover, it's been shown that imbalance in the metabolism of ghrelin, leptin and adiponectin is associated with pathological impulsivity and other conditions, such as ADHD, personality disorders and affective disorders. Psychotropic treatments regulate the activity of neurotransmitters in the central nervous system, improving the mental state of the patients, but they may also induce weight gain and metabolic imbalances, the importance of which is often undermined until late stages, when the chances of a successful therapy are also reduced.

Given that obesity and metabolic disorders are associated with elevated morbidity and mortality in psychiatric patients, there is an urgency for prevention and/or rapid initialization of treatments. Furthermore, studies have shown that concomitantly approaching the metabolic and the psychiatric disorders of a patient, using both psychotropic substances and a dietary regimen promise better results than addressing these conditions separately.

Keywords: impulsive behavior, metabolic disorders, weight gain, monoamines, acetylcholine, ghrelin, leptin, adiponectin.

PERSONALITY DISORDERS AND PATHOLOGICAL GAMBLING
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Background: To approach recent developments in the field of personality disorders and their association with pathological gambling or gambling disorder.

Methods: This study covers literature published from 2015 to present to offer you the possibility of understanding the prevalence rates of common personality disorders among pathological gamblers. Frequently observed personality disorders in pathological or problem gamblers represent Cluster B disorders. There are reports indicating prevalence of Clusters A and C personality disorders as well. The rates of personality disorders among pathological gamblers reported in these studies align with Hill's guide lines - Strengths, Specificity and Temporality. Biological gradient, plausibility and replicability indicate a strong association between pathological gambling and personality disorders. Studies are predominantly cross-sectional and consistently show that the presence of a personality disorder is associated with gambling severity and early age of onset pathological gambling.

Results: Research on pathological gambling should advance beyond estimating rates of personality disorders and focus on longitudinal research to understand the pathways between personality disorders and onset and severity of pathological gambling. Current research shows consistently high rates of personality disorders among pathological gamblers. There is a need for consistency across studies in the assessment of pathological gamblers and comorbid personality disorders especially in light of changes in the classification of pathological gambling to gambling disorder in DSM-5.

Conclusions: Pathological gambling is addictive disorder not impulse control any longer. These developments in our understanding of the disorder will generate more ideas for prevention and interventions for the consequences as well as the exposures to this disorder. Research should more beyond estimating prevalence of personality disorders among persons with gambling problems to delineate the interaction of personality disorders and problem gambling resulting in other adverse outcomes.

Keywords: addiction, comorbidity, gambling disorder, pathological gambling, personality disorders.

THERAPEUTIC RESISTANCE IN THE PHARMACOLOGICAL THERAPY OF DEPRESSION
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The existence of a discrepancy between the wide range of pharmacological means of intervention in the therapy of depression and the high rate of incomplete remissions (75%) represents the point of emergence for therapeutic resistance type mechanisms.

Primary therapeutic resistance is associated in most cases with an erroneous diagnosis, being often represents by the traumatic, toxic, infectious, or neoplastic damages of the frontal pole. A particular form of this component is represented by closed head injuries with relatively low intensity, but common in terms of domestic violence. This injury associated cerebral axonal dysfunction. Within avoided potential diagnosis in therapeutic resistance are blood dyscrasias, liver and kidney function alterations. Also, a particular place is occupied by silent strokes and blood-brain barrier dysfunction. The capacity of therapeutic resistance is directly related to the conservation of neurogenesis in the granular subventricular zone and in the CA1 - dentate gyrus hippocampal area.

Excessive use of antipsychotics associated with antidepressant medication practically destroys the neurogenesis, and the existence of prolactin may be a predictive marker of potential therapeutic resistance.

Keywords: neurogenesis, axonal dysfunction, blood dyscrasias.

CLINICAL AND FORENSIC IMPLICATIONS OF MENTAL ILLNESS IN VIOLENT BEHAVIOR DETERMINATION
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Linking up violent behavior and mental illness has been certified by numerous authors over time. In 1857 dr. John Gray described 49 cases of homicide committed by patients diagnosed with major mental illness. In 1919 Kraepelin presented in his monograph about schizophrenia that in certain circumstances the impulsive actions of the patients may become extraordinarily dangerous. However, there are studies who claim there is no real connection between mentally ill patients and violent behavior and those individuals with serious mental illness are no more dangerous than members of the general
population. Link showed in one of his studies that from 1500 subjects questioned 61% answered that psychiatric patients are more likely to commit violent acts due to their condition. For the past several years a large number of studies in the field of forensic psychiatry confirmed a close relationship between violent offenders a comorbid substance abuse. Recent studies showed causal relationship between mentally ill patients, alcohol abuse and criminal actions such as: physical assault, rape, attempted murder and homicide. This observational study analyses the causal linkage between major mental illness and its type, abusive alcohol consumption or drug usage, and criminal acts considering the following criteria: onset debut, gender, socioeconomic status and clinical risk factors. Today the main objective of forensic psychiatry treatment services is the management of the violent offenders with psychiatric comorbidity which requires a multilevel, clinical evidence based approach to the patient. Psychotherapy, psychopharmacology and occupational therapy are absolutely necessary for obtaining an optimal rehabilitation, prevention of recidivism and stability in social functioning of the patient inside the community. 

Keywords: forensic psychiatry, alcoholism, violent behavior, homicide, mental illness.

PHARMACOLOGICAL MANAGEMENT OF DEPRESSION IN ALZHEIMER'S DISEASE

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An important aspect related to the non-cognitive treatment of Alzheimer disease is the management of depression, aimed to alleviate the clinical symptomatology of depression, but also to improve or maintain the patient's life quality. Selective serotonin reuptake inhibitors (SSRIs) are first-line antidepressants, out of which citalopram and sertraline demonstrated significant impact both on psychosis are well as depression, suggesting that these agents might have antipsychotic potential in Alzheimer patients. Improvements were also recorded for aggressiveness, anxiety and excitement. As second line treatment recommendations go to dual antidepressants such as mirtazapine, venlafaxine or trazodone, while tricyclic and tetracyclic antidepressants (amitriptyline, doxepin, imipramine) should be avoided due to the anticholinergic effects. Trazodone, a serotoninergic antagonist and reuptake inhibitor (SARI), is still recommended as first choice in patients with Alzheimer and depression, where symptomatology includes also insomnia or aggressiveness. The treatment of depressive relapses should be done with mood stabilizers, while delirious depression requires lithium salts. Given the Alzheimer specificity, clinical manifestations may appear generated by treatment discontinuation or interruption. Personality or behavioral changes may lead to confusions as for their real cause. It is difficult to state whether this clinical picture is pharmacologically induced or is a relapse. SSRIs are considered the best alternative in the treatment of depression in Alzheimer, due to the increase of serotoninergic neurotransmission by serotonin reuptake inhibition. Additionally, the safety and side effects profile is highly superior compared with that of tricyclic ones or monoamine oxidase inhibitors. The advantages of not being anticholinergic and not producing orthostatic hypotension recommend these therapeutic agents for a wider use on elderly patients.

It is essential that every patient diagnosed with Alzheimer associated with depressive symptomatology is permanently monitored in order to adequately evaluate the therapeutic benefits, as well as potential side effects or tolerance issues. Treatment discontinuation should be considered in patients with symptomatology decline.

Keywords: antidepressants, Alzheimer, depression.

PHARMACOLOGICAL PRECAUTIONS IN THE THERAPY OF BEHAVIORAL SYMPTOMS IN ALZHEIMER'S DISEASE

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Behavioral and psychological symptoms associated with dementia (BPSD) lead to a poor quality of life and increase of care costs, involving multifactor etiology, with neurobiologic, psychological and social factors. The medication that targets the specific symptoms in the BPSD spectrum should be limited to the situations where other physical causes were identified and treated yet the symptomatology is disturbing the patient and the family, especially after the patient was unsuccessful in applying non-biological strategies (behavioral therapy, environmental adjustment and change, music therapy, improvement of sleep hygiene). Most issues created by antipsychotic therapy were related to cardiovascular or infectious pathology, walking disorders and extrapyramidal effects. The general principles for pharmacologic management of behavioral and psychological symptoms in Alzheimer's disease are:

1. Clear specification and quantification of target symptoms with issues to allow objective evaluation of medication efficacy; monitoring behavioral symptoms before and after medication.
2. Selection of the therapeutic agent most adequate to the treatment class of a certain symptom of a defined psychiatric syndrome, based on its efficacy for those relevant symptoms and mimin potential of side effects.
3. Initiate administration with small dosage (between 1/3 and 1/2 from the usual initial dose for adults, for example risperidone 0,25 mg twice per day, or 2,5 mg olanzapine per day).
4. Dosage adjustment is done gradually depending on the monitored therapeutic effects and the presence of adverse reactions.
5. In the absence of desired clinical effects, medication is discontinued and another therapeutic method is required.
6. Association of agents, multigang therapy should be avoided due to interactions between medication. Monitoring of potential drug interactions in terms of pharmacokinetic and pharmacodynamic.
7. Re-evaluation of the therapeutic regimen, both pharmacological and non-pharmacological strategies,
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done every three months.
8. Identifying and monitoring comorbid medical diseases, and their therapies.

**Keywords:** pharmacological management, Alzheimer disease, behavioral symptoms.

**ATYPICAL ANTI-PSYCHOTICS TREATMENT FOR PATIENTS WITH DEPRESSION**

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The research regarding depressive disorder is growing, given the scale of the phenomenon and its consequences socially and financially. It is anticipated that maintaining the current pace of growth in the next century, depression will rank second in the general classification of diseases, the first being located to cardiovascular diseases.

The use of antipsychotics to treat depression has a long history, with many controlled studies that demonstrate the effectiveness. Initial investigations have verified the hypothesis that conventionally phenothiazine antipsychotics have antidepressant activity, either alone or administered in combination with a tricyclic antidepressant. Using this combination lost popularity when registering occurrence of extrapyramidal side effects and the risk of important tardive dyskinesia to a significant percentage of patients. However, remained a first-line indication for patients with psychotic depression where are present hallucinatory or delusional phenomena.

The introduction of atypical antipsychotics increased interest in this direction, attitude encouraged by the low incidence of secondary parkinsonism, decreased risk of tardive dyskinesia and reduced impact on cognitive function. Current clinical guidelines recommend that first-line approach combining a classic antipsychotic atypical antipsychotic treatment. Atypical antipsychotics can augment the action of antipsychotics by blocking 5HT2A receptor. Alpha 2 antagonists have an additional effect and increase the release of noradrenaline.

Psychopharmacology studies suggest that next-generation neuroleptics can have a mood stabilizer activity. There are cases in the literature and studies presented which suggests that risperidone, quetiapine, clozapine and olanzapine may be useful for some patients with affective disorders.

**Keywords:** depression, atypical antipsychotics, treatment.

**COGNITIVE IMPAIRMENT IN PARKINSON’S DISEASE**

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Parkinson’s disease is a neurodegenerative disorder that affects over 10 million people, in Romania 70,000 people being diagnosed with this malady. Given the aging of the population and the age prevalence of illness occurrence, early recognition of symptoms associated represents an important aspect of disease management. Although Parkinson’s is regarded as a motor system disorder, non-motor symptoms are common, can occur at any stage of the disease and can affect function and quality of life equally with motor symptoms.

In this category, they are commonly found: sleep disorders, autonomic (gastrointestinal, sexual dysfunction, salivation), sensory symptoms (paraesthesia), neuropsychiatric symptoms (depression, apathy, anxiety, attention deficit disorder).

Cognitive dysfunction is present in 50% of patients with Parkinson’s disease, which may present impaired executive function, impaired working memory, attention or language deficiency. Mild cognitive impairment can be present since the early stages of the disease, but being a neurodegenerative disease, it shows progression over time. Dementia is late associated with Parkinson’s, with a prevalence of 20-40% and it shows different clinical and neuroimaging aspects from the Alzheimer's dementia. The lack of clear diagnostic criteria and assessment tools make it difficult to identify and treat cognitive impairment.

**Keywords:** Parkinson’s disease, neuropsychiatric symptoms, cognitive impairment, dementia, Alzheimer.

**BIO-CHEMICAL AND PSYCHOLOGICAL VULNERABILITY IN SUICIDAL ATTEMPTS**

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Trans temporal and transcultural character of suicidal phenomenon raises the question of a possible "irreducible rate" of suicide among humans and etiological suicide dilemma seen as "the price of civilization or of life." In general, medical practice, suicide is often correlated with the anxiety caused by chronic debilitating and incurable or masked depression. To properly assess the patient with suicidal risk, bear in mind the context and polymorphic multifactorial etiology, including both psyche and somatic, moral reasons, social, religious, philosophical or personal reasons or, conversely, a pathological act that occurs during the evolution of mental illness. The presence in the structure of personality of manifestations explosive impulsive, frequent depressive relapses and low adaptation in family and matrimony facilitates suicidal risk.

Suicidal behavior must be addressed and considered in terms of danger. This causes danger vital prognosis and whatever the motivation or underlying pathological structure, material circumstances remain important act of self-harm. All these findings confirm our assumptions that the suicide attempt takes place amid vulnerabilities individual elevated in all fields (bio- genetic, biochemical, psychological, cognitive and social), to which can be added a number of contextual factors predisposing.

To avoid suicidal behavior is particularly important an early detection of any sign, risk factors for suicide as competent and appropriate psychotherapeutic approach to psychiatric consultation and transfer to a specialized unit.

**Keywords:** suicidal attempt, vulnerability, risk factors, psyche and soma and socio-cultural dimension.

**INFLAMMATION, OBESITY AND DEPRESSION**

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The term neuro-inflammation is generally used to describe the immune-related processes that took place in the central nervous system (CNS). The acute neuro-inflammation process that takes place in the CNS are usually in a context dependent situation. The transient inflammatory response is in general protective for the CNS. On the other hand, the chronic inflammation exposure is associated with neurodegenerative disease, affective disorders and possible cognitive degradation. When astrocytes are activated, it increases the IL-1β, CCL2, PGE2, TNF-α, the reactive oxygen species (ROS) and modulates the glutamate level (they can indirectly increase it or take the excess of glutamate from the synapse level and converts it to glutamine that is send back to the neuron), so it acts also on neuromodulation and Blood-Brain-Barrier stability. So, by many intrinsic mechanisms the inflammation acts on neuromediators level, neurogenesis, endocrine factors and obesity and all of these precipitates or aggravates the depression. From the clinical point of view the treatment of depression should take into consideration as add-on therapies the reduction of the chronic inflammation, obesity and endocrine dysfunction.

Keywords: inflammation, endocrine factors, obesity.

POSTER PRESENTATIONS

ORAL HEALTH CARE IN A SAMPLE OF PATIENTS WITH PSYCHIATRIC DISORDERS

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General and oral health are closely connected, with oral health being a part of the general health. There is a large number of somatic diseases such as chronic infections, diabetes mellitus, cardiovascular diseases that can contribute to an impairment of the oral health. Some dietary behaviors such as consuming sparkling beverages, but also smoking and alcohol consumption have a negative influence upon oral health. Other situations associated with impairment of oral health in psychiatric patients are related to the type, the severity and the stage of the disorder, the side effects of the medication, the mood, the motivation and self-esteem, the lifestyle, patient's habits, the lack of information, the social, economical and cultural status. The attitude and knowledge regarding psychiatric disorder that medical team of dental care has, but also the inability and sometimes even the lack of willingness to care for psychiatric patients can influence the providing and the access to oral care services. In this context, we present data concerning caring habits for oral health from a research study on 40 patients with psychiatric disorder sample. Research results are showing that only in 16.7% of the cases the assessed patients presented to a dentist for routine consult, while in almost half of the cases (48.5%) they have presented for dental pain. The data regarding the caring methods used by these patients show that most patients in the research sample are using daily dental brushing, but they are not using additional caring methods.

Keywords: psychiatric disorders, oral health, dental brushing.

PREDICTIVE FACTORS FOR DEPRESSION IN INFLAMMATORY BOWEL DISEASES

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Background: Inflammatory bowel diseases - ulcerative colitis (UC) and Crohn's Disease (CD) - represents a real problem for public health and impairs the quality of life.

Aim: We aimed to study the frequency of depression in patients with inflammatory bowel diseases.

Methods: The study was performed on 60 patients (28 women and 32 men), with the average age of 46.7 years, diagnosed with inflammatory bowel diseases (21 patients with CD and 39 patients with UC).

Clinical and laboratory data were collected using standardized forms (anamnesis, biological assay - hemogram, inflammatory tests, colonoscopy with biopsy, magnetic resonance enterography for intestinal Crohn disease, etc.) and psychological/psychiatric evaluation.

Patients diagnosed with inflammatory bowel diseases underwent a psychiatric exam consisting in a clinical psychiatric interview and the Hamilton Rating Scale for Depression (HAMD). Then, using multivariate analysis, we identified demographic, biochemical, and endoscopic factors associated with the presence of depression.

Results: The HAMD scores were indicative of depression in 26 patients (43.3%): 2 cases (3.33%) major depression (HAMD>18), 10 cases (16.66%) moderate depression (HAMD = 12-18) and 14 cases (23.33%) mild depression (HAMD = 8-12).

Patients fears have been linked to the risk of job loss or tensions in their families and less to the risk of malignancy in inflammatory bowel disease.

Depressive symptoms were correlated with the severity of diarrhea and the presence of rectal bleeding.

Diarrhea was present in 88.33 % of the patients (95% CI 85–90). In 18.33 % of the patients (95% CI 15–19) diarrhea was severe (more than 10 stools/day), impairing activity.

In multivariate analyses, depressive mood was associated with the following risk factors: age over 50 years, rectal bleeding, severity of diarrhea and a past history of depressive disorder. Other variables such as gender, level of education, luminal extension of endoscopic lesions or the level of inflammatory syndrome - were not predictive factors.

Conclusions: Depression is a common expression in inflammatory bowel disease, significantly impairing quality of life and is correlated with presence and severity of diarrhea and rectal bleeding.

Keywords: inflammatory bowel disease, depression, predictive factors.
THE RELATIONSHIP BETWEEN THE MICROBIOME AND THE BRAIN: MENTAL HEALTH IMPLICATIONS

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Recent international specialty literature and clinical studies have shown that there is a close link between the gut and the brain. The gut microbiome is composed, mainly, of bacteria, fungi, archaea, viruses and protozoa, and their number could reach as high as 400 trillion. The microbiome mediates a part of the hypothalamic–pituitary–adrenal axis and it is an important component of the immune system. The communication between the gut and the brain is bidirectional, direct and indirect, occurring through the enteric and central nervous systems, the vagus nerve, the endocrine and immunoinflammatory systems and through the modulation of neurotransmitters. The microbiome communicates with the brain through three ways – hormonally, immune system and direct mechanisms. Some of the gut microorganisms can transmit signals to the brain via the vagus nerve by realizing neurotransmitters. Animal studies have shown that microbiome alterations can produce behaviors related to anxiety or depression. If we take into consideration the theory that depression may be an inflammatory disorder, then the gut could be an important mediator of this disorder. Also, the amount of serotonin in the gut and the microbiome influence on tryptophan, the serotonin precursor, seem to play an important role in mental health. The relationship between the microbiome and the brain isn't fully understood, but the possibility of being able to alleviate psychiatric disorders through lifestyle changes, like a specific type of diet and exercise, is to be taken into consideration.

Key words: microbiome, brain, gut, depression, neurotransmitters.