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15 - 18 MAY, 2019

BOOK OF ABSTRACTS



DEMENTIA:
PSYCHIATRIC AND NEUROLOGICAL
CHALLENGES AND PERSPECTIVES



WPA THEMATIC CONGRESS ON DEMENTIA

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PL-1**PARTNERSHIPS IN DEMENTIA CARE WORLDWIDE****Helen Herrman***President, World Psychiatric Association**Orygen, The National Centre of Excellence in Youth Mental Health and The University of Melbourne, Australia*

The number of people with dementia is increasing globally, especially in scarce-resource countries. Health-care systems are in danger of becoming overwhelmed by the costs of caring for people with dementia and supporting their family carers. Mental health professionals in countries across the world have a significant role in the network of health and social services that support dementia care. Dementia care is an integral part of general health care and public health and the attainment of universal health coverage. Support for community workers, family carers and those living with dementia is becoming a priority in high-income as well as scarce-resource countries. In May 2017, the World Health Assembly endorsed the Global action plan on the public health response to dementia 2017-2025. It is a guide for action – for policy-makers, international, regional and national partners, and WHO – in areas such as: increasing awareness of dementia and establishing dementia-friendly initiatives; reducing the risk of dementia; diagnosis, treatment and care; research and innovation; and support for dementia carers. The Lancet Commission on dementia (July 2017) calls on governments to generate updated action plans for dementia along these lines to tackle the impending dementia crisis.

PL-2**DEMENTIA THROUGH THE REFLECTION OF ART AND PHILOSOPHY****Zvezdan Pitrosek****PL-3****TIME IS ON OUR SIDE****Alexander Kurz***Department of Psychiatry, Klinikum rechts der Isar, Technical University of Munich, Munich, Germany*

Despite recent disappointments in drug development there is still hope that compounds targeting key events of Alzheimer's disease pathophysiology will slow down the progression of the neurodegenerative process. It is usually assumed that disease-delaying treatments will be most beneficial when started at the stage of minor symptoms, which has become possible by the development of accurate diagnostic biomarkers. In this novel scenario, affected individuals will have to live longer with the burden of knowing that they have a progressive incurable brain disorder. On the other hand, they will enjoy more years of relatively preserved cognitive and functional ability, spend more years in the mild and moderate than in the severe phases of the disease, and even may not reach the stage of profound dementia. By extending the period of maintained capacities the new drugs will open novel opportunities for living well with dementia. They will enable people to develop effective coping strategies, reach personally important goals, pursue meaningful activities, participate in life, and continue interpersonal relationships. To attain key components of quality of life people with dementia will need to be supported by non-pharmacological interventions. The upcoming drugs will boost the importance of these treatments and thus create new challenges for therapists and patient organisations. Much has still to be learned how to provide the skills,

courage and strength that are required for people with dementia to realise their capacities, aims and resources.

PL-4

ALZHEIMER'S DISEASE – RISK FACTORS, PREDICTION, PREVENTION AND THE ROAD AHEAD

Gabriela Novotni

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Alzheimer's disease (AD), the most common cause for dementia, is evolving to become a threatening epidemic of the 21st century. A disease that was in details described by Alois Alzheimer in 1906 and was considered to be a rare disease at that time, is about to become a global medical and social problem. Even though the exact etiology and pathogenesis of Alzheimer's disease is still unrevealed challenge for the neuroscience, it is well known that old age is a major risk factor for AD, but AD is not inevitable consequence of ageing. Apolipoprotein E gene (APOE) is recognized as the strongest genetic risk factor for sporadic AD, but whether and when Alzheimer's dementia develops, depends on very complex interaction between genetic and modifiable risk factors. This discussion aims to evaluate risk and predictive factors for Alzheimer's disease with accent on modifiable risk factors. As family history for AD increases the risk for later development of AD, both through genetic and non-genetic factors, results from the adult children study are also discussed. Statistically significant predictors for Alzheimer's disease, according to our study are: APOE ϵ 4 allele, living in rural area, education lower than 9 years, smoking, traumatic head injury, hypertension, dyslipidemia, family history for dementia, midlife depression and stress. Physical activity and social engaging activities (hobbies, cognitive stimulating activities) are protective factors concerning AD. The results from the study, obtained by identifying and analyzing the dominant risk and predictive factors for Alzheimer's disease that have the original signature of the population and geographic region where the study is performed, could serve as scientifically based starting point for creating predictive tools, screening tools for identification of individuals at risk and for developing preventive strategies.

PL-5

CURRENT AND FUTURE TREATMENT OF ALZHEIMER DISEASE

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Background: In 2015, the number of people affected by dementia worldwide was estimated to almost 49 million, with an estimated cost of approx 818 bUSD. The worldwide prevalence of dementia is expected to reach 75 million in 2030, with an equivalent cost increase. So far, no cure or highly significant symptom relieving is available. Methods: Increased understanding of the pathophysiology of Alzheimer disease (AD) has given us new therapeutic targets. Many clinical and experimental studies are ongoing, mainly based on anti-amyloid- β (A β) strategies, but the exact role played by A β in AD pathogenesis is not clear. Lately, also active immunotherapy studies on tau are introduced. Preclinical research is constantly providing us with new information of the complex AD puzzle. Synapses are viewed as critical sites for the initiation of AD and loss of synapses is considered the best pathological correlate of cognitive decline in AD. One approach to rescue the synapses would be to identify small molecule inhibitors that could inhibit the interaction between chaperones and co-chaperones. This would be a good strategy to modify the

underlying intracellular mechanisms. Furthermore, antibodies will be generated against different synaptic protein aggregates. New research findings will make these antibodies more able to pass the blood-brain-barrier and also into the neuronal cells. Other novel approaches based on basic research findings include affecting inflammation, cholesterol, metabolic disorders like DM type 2 and microbiota, will be discussed. Conclusion: Our hope for the future is not only to give the patient an early symptomatic relief but that new therapies could potentially slow or even halt the progression of the disease. Increased global collaboration between academia, industry and regulatory authorities is a vital step for a successful drug development.

PL-6

ALZHEIMER'S DISEASE – DIAGNOSTIC CHALLENGE AND THERAPEUTIC POSSIBILITIES

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Alzheimer's disease (AD) is the main cause of dementia and accounts for 60% of dementia syndromes in people older than 75 years. Memory impairment, especially impairment of episodic memory, is one of the first symptoms of typical AD¹. Alzheimer-like clinical picture is often assumed to be the underlying cause of dementia in elderly patients. Thus, it is highly important to establish the correct diagnosis and be aware of medical conditions that may be presenting with memory impairment mimicking AD. The correct classification of AD and non-AD is mandatory to study disease mechanisms or new treatment possibilities. The term "memory" generally means the ability to reproduce or remember experienced or learned content. Although there are fewer common syndromic variants of AD, one of its main and early features is an impairment of episodic memory. Episodic memory is an essential cognitive function that supports our ability to form an autobiographical history and helps us to create a concept of the past and the future². The hippocampal network, including the parahippocampal gyrus, hippocampus, and neocortical areas, play a major role in the process of memory consolidation and retrieval³. Virtually any neurological, neurodegenerative, toxic, or traumatic damage to brain structures involved in episodic memory generation, especially the hippocampus, may lead to deficits in episodic memory that may resemble or precede AD⁴, especially in the absence of other neurological or neuropsychological symptoms or signs indicative of an alternative cause. The diagnostic procedure of memory impairment is firstly based on a comprehensive clinical investigation, that should comprise a detailed medical/medication history, proxy report of the perceived symptoms, neuropsychological testing, and a neurological and psychiatric examination. Additional investigations, such as a magnetic resonance imaging (MRI) scan, 18fluorine-2-deoxy-D-glucose positron emission tomography (18F-FDG-PET), cerebrospinal fluid (CSF) examination, electroencephalography (EEG) and AD biomarkers (β -amyloid₄₂ [A β ₄₂], ratio A β ₄₂/A β ₄₀, total tau protein [t-tau], and phosphorylated tau [p-tau]), may further help to establish the correct diagnosis. A typical clinical picture for AD consists of a slowly progressive memory loss and loss of praxis and speech, absence of medical, neurological, or psychiatric condition that may explain the memory loss, brain imaging that is in line with AD, and biomarkers supporting the diagnosis of AD⁵. Atypical symptoms such as early neurological symptoms, mood disorder, visual hallucinations, or an atypical sudden onset may hint at a diagnosis other than AD. Application of the novel clinical criteria based on biomarkers has shifted a diagnostic procedure "to the left" and has introduced a new concept termed preclinical AD where clinically normal individuals with biomarker evidence of AD pathology were hypothesized to be on the trajectory towards symptomatic AD. The NIA-AA staging framework for preclinical AD is based on biomarker combinations and cognition: stage 1 denotes to amyloidosis without neurodegeneration,

stage 2 denotes to amyloidosis plus neurodegeneration and stage 3 denotes to amyloidosis plus neurodegeneration plus subtle cognitive deficit. Use of biomarkers have carried out individuals with mild cognitive impairment who are amyloid-negative but neurodegeneration-positive addressing a conceptually separate clinical entity named suspected non-Alzheimer disease pathophysiology (SNAP). SNAP clinical progression can mimic AD that makes final diagnose and treatment options uncertain in the clinical centers that are not using biomarkers in the assessment of cognitive impairment. The neurobiological bases non-AD pathologies are common with advancing age in impaired and clinically normal elderly people. These pathologies include cerebrovascular disease, α -synucleinopathy, argyrophilic grain disease, TDP-43 proteinopathy and hippocampal sclerosis⁶. Medial temporal tau pathology without amyloidosis might be a major constituent of SNAP. The term primary age-related tauopathy (PART) has been proposed as a useful practical clinical construct⁷ to describe this phenomenon in very old individuals. Furthermore, a clinico-pathological studies⁸ demonstrate that aggregated tau distribution in the absence of beta-amyloid is associated with early cognitive impairment (MMT > 24), left hippocampus/limbic atrophy, relatively preserved cortex, low frequencies of APOE4, TDP-43, Lewy bodies, and hippocampal sclerosis, and the rarity and morphology of TDP-43 lesions what is clear contrast to what is typically observed in Alzheimer's disease of the old. Besides slow progression of memory impairment a slow evolution of behavioral and mood changes is not uncommon. Increased awareness of AD and non-AD clinical entities may ultimately help clinicians to establish timely clinical diagnose and to start an adequate/personalized therapeutic intervention.

PL-7

DRUG DEVELOPMENT FOR ALZHEIMER'S DISEASE: ARE WE CLOSE TO A SUCCESS?

Manfred Windisch

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The development of new treatments for Alzheimer's disease (AD) is a frustrating experience, showing a failure rate of about 99,6 %. The only approved drugs are acetylcholine-esterase inhibitors and the partial NMDA antagonist memantine. Since the focus on disease modifying therapies, mainly targeting amyloid metabolism and pathology, started the field was exposed to failures showing meaningful improvement of function or cognition, in spite of significant effects on the target! Explanation can be the poor translational value of preclinical animal studies, the study design itself, insensitive cognitive tests, but it could also be the choice of the target or simply the wrong compounds. The last disappointment was the failure of the monoclonal antibody aducanumab in phase 3, in spite of promising data from phase 1, showing almost complete amyloid clearance from the brain and stabilization of cognitive function. Is this a further challenge of the amyloid cascade theory, or even a proof, making clear that treatment must start long before symptoms occur, strongly pointing towards prevention treatments. But is this the only hope?

There are several current studies targeting toxic ABeta oligomers, preventing their formation or blocking interaction on specific receptors. Tau pathology also offers several possibilities for pharmacological intervention and antibody therapy, but there are no results available so far. There are ongoing studies with new approaches via neurotrophine receptors as neuroprotective treatments that have the capability of fast cholinergic stimulation combined with disease modification. Finally, there are emerging attempts for new symptomatic treatments, e.g. ortho- and allosteric modulation of cholinergic M1 receptors. Downstream effects of M1 agonists may also address different important pathogenetic pathways of AD, potentially being able to slow down disease progression. In spite of disappointments there are still many unexplored options for treatment of AD, and some of the failed drugs may offer potential as preventive strategies.

PL-8**THE ROLE OF PET IMAGING IN EARLY AND DIFFERENTIAL DIAGNOSIS OF DEMENTIA****Maja Trošt***Department for neurology and Department for Nuclear Medicine
UMC Ljubljana, Slovenia*

Early and precise diagnosis of dementia is important for the appropriate use of medication, as well as for revealing the disease course and prognosis to the patients and their caregivers and for the enrolment of appropriate patients in the research projects. Structural and functional neuroimaging plays an important role in ruling out the treatable causes of dementia, as well as improving diagnostic accuracy of neurodegenerative dementia syndromes.

Metabolic brain imaging with 18F-FDG PET is commonly used in the early and differential diagnosis of dementias subtypes, as dementia syndromes are characterized by specific hypometabolic signatures as it enables the in-vivo assessment of metabolic brain dysfunction. 18F-FDG PET brain images are usually assessed visually, but semi-quantitative and statistical analysis programs may be used to further improve the diagnostic accuracy. 18F-FDG PET can be used as imaging biomarker for disease progression as well as for monitoring the conversion from mild cognitive impairment to dementia.

Although the imaging of pathological hallmarks, like amyloid beta and tau protein are available nowadays, the metabolic imaging with 18F-FDG PET cannot be replaced with other imaging modalities but rather adds a complimentary information about the neurodegenerative brain syndromes.

PL-9**LEGAL AND ETHICAL ASPECTS IN THE END OF LIFE CARE OF ELDERLY WITH OR WITHOUT DEMENTIA****Nicoleta Tataru**

The physician who deals with patients who approach the end has to cope with a number of ethical dilemmas and medical challenges in caring them, assuring them the best quality of life possible. People with dementia often receive suboptimal end-of-life care and they have been often neglected and abused.. Respect for the individual's expressed wishes and interest, should guide all end-of-life care decisions. The short review of ethical aspects in forensic geriatric psychiatry has only introduced some of the complex matters raised by forensic consultation, evaluation and expertise. With the increasing prevalence of dementia, issues of competence have become very important, as well as the informed consent of elderly in research and treatment. We discuss about the mental capacity, competence and non-competence due to mental disorders, especially dementia. Assessing testamentary capacity and responsibility in the terminal phase of an illness or at a person's deathbed are important challenges for both doctors and lawyers. A patient in final disease has to be cared according to the basic human rights and the medical principles. In end-of-life care we must consider also diagnosis disclosure, guardianship system, placement of people with dementia and end-of-life decisions like quality of life and prolonging life. Assessing capacity is also important in preparing an advance directive, for an advance directive to be valid, the person must have capacity. Some of our patients, particularly older people with dementia, may not be able effectively to represent their interests and manage their affairs. In some clinical situations, a conflict between different ethical principles may occur, and professionals and caregivers need to be aware of this and to be guided about how to behave. A lack of legal knowledge of the law on withholding and withdrawing life-sustaining treatment from adults who lack decision-making capacity, will not excuse a medical professional from liability.

PL-10

TESTAMENTARY CAPACITY IN DEMENTIA

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Assessing testamentary capacity in patients within early stages of cognitive decline is fraught with challenges for both psychiatrists and lawyers. Our ageing society and the increasing prevalence of dementing illness has increased the need for and the challenges in, assessing testamentary capacity. Testamentary capacity is a functional assessment made by a clinician to determine if a patient is capable of making a specific decision. Numerous issues need to be considered when assessing capacity for a will. The type and severity of the dementia, effects on various domains of cognition, effects of medication, psychological and emotional factors, interactions with careers, family and lawyers, and a range of other issues confound and complicate the assessment of testamentary capacity. There are four decision-making abilities that characterize capacity: Understanding, appreciation, reasoning, and expressing a choice. A baseline cognitive evaluation with a simple test to assess executive function is often useful in capacity evaluation. All capacity evaluations are situation specific, relating to the particular decision under consideration, and are not global in scope. However, despite its importance and increasing prevalence, the literature addressing this challenging practical area is scarce and offers limited guidance. This presentation examines these challenges and discusses some practical approaches.

PL-11

PSYCHIATRY EVALUATION POSTMORTEM - CHALLENGE TO FORENSIC PSYCHIATRISTS

Vaiva Martinkienė

forensic psychiatrist, director of Lithuanian Forensic Psychiatry Service

In the Lithuanian Forensic Psychiatry Service there have been 117 postmortem forensic psychiatry evaluations carried out during 2016-2018. The number of evaluations was different: there were 54 evaluations in 2016 and 28 in 2018. All postmortem forensic psychiatry evaluations were made with the purpose of evaluating a person's mental status during the confirmation of a legal contract/testimony. Forensic psychiatry evaluations always are a challenge for forensic psychiatrists because of retrospective attitude and often very limited data about a person's mental status. Usually there is only medical data from the family therapist about somatic diseases and some data from the person's private notes or documents. The task for a forensic psychiatrist in postmortem evaluation is to conduct an analysis on how somatic diseases and their complications impact a person's mental health and to compare this data to theoretical knowledge about the dynamic aspects of different diseases. During 2016-2018 there were 117 evaluations in civil cases: 43 for men and 74 for women. There were 83 cases from persons living in cities and 34 cases of persons living in rural districts. The average age has changed: in 2016, the average age for men, who signed the testimony, was 73 years and the average age for women was 80 years; in 2017 the average age for men was 69 years and the average age for women was 78; in 2018 the average age for men was 79 years, and for women - 89 years. There is an obvious difference - men sign the testimony about 10 years younger than women. This represents the overall difference in life expectancy between men and women in Lithuania. Forensic psychiatry experts had a big challenge in postmortem evaluations because of the lack of psychiatric data. In 2016, 54 cases were evaluated and 72, 2 % (N =39) of these evaluations were made from data without the specific data about the psychiatric

evaluation of a person's mental status being present. In 2017, 35 cases were evaluated and 80 % (N=28) of them did not have psychiatric data. In 2018 - 28 cases and 82 % (N=23) of them did not have psychiatric data. These figures show the difficulty of evaluation that must be carried out by a forensic psychiatrist in postmortem cases. In cases without psychiatric data, a lot of different somatic diseases and their complications which cause cognitive impact must be evaluated and this task demands a forensic psychiatrist to possess a profound knowledge in somatic and neurological diseases.

PL-12**IMPORTANT AREAS IN THE FORENSIC ASSESSEMENT OF PEOPLE SUSCEPTIBLE TO DEMENTIA***Georgi Kirilov, Bulgaria, Sofia University "St. Kliment Ohridski"**Vladimir Velinov, Bulgaria, Medical Center "Mental Health" Sofia*

The people suspected to dementia are assessed during their lifetime whether they understand what's in their interest and if they can they guide their actions in committing legal acts or preventively controlling their actions. The same abilities are judged posthumously, but in absentia. Incomplete documents, incomplete impressions or inaccurate information are commonplace. Everyday details, shades in reasoning, preserved or distorted attitudes can justify a more robust expert judgment. The direct extrapolation of anatomical changes in psychopathological syndromes is a common mistake. Holistic analysis is determinative. The diagnosis is based on registered syndromes, but information on the absence of certain disturbances or of consultations for such syndromes is also valid. The assessment of the individual's state of action in the past considers both the underlying and the momentary competencies and the action taken – stereotype or more complicated. The assessment of the attention, memory, intellect and learning, orientation, sensory disturbances, emotional control, understanding, logic, creativity, interests, social behavior, professional activities, lifestyle, communication, daily routine, self-care is fundamental. The Psychodiagnostics assessment goes through the phases of observation, specialized interview, assessment of the cognitive processes (standardized psychometric methodologies), personality assessment (structured questionnaires, projective methodologies). Distinguishing dementia from depressive pseudo-dementia is a special case.

PL-13**COGNITIVE DECLINE AND DEMENTIA IN PARKINSON'S DISEASE****Vladimir S. Kostić***Institute for Neurology CCS, School of Medicine, Belgrade – Serbia*

Cognitive decline, heterogeneous in its presentation and progression, is a frequent non-motor symptom (NMS) in Parkinson's disease (PD). At time of diagnosis, and probably even in pre-motor stage of the disease, nearly all PD patients have some degree of cognitive impairment in several domains not affecting functionality independence, such as attention, working memory and executive functions, language, visuospatial skills, and episodic memory. Recent research has focused on the pre-dementia stages, particularly mild cognitive impairment (PD-MCI), a harbinger of dementia in PD (PDD). However, the course of PD-MCI is variable, and stabilization of cognition - or even reversal to normal cognition - is not uncommon. Part of cognitive defects is ascribed to a dopamine-dependent dysfunction of fronto-striatal pathways, but there is a considerable heterogeneity in the cognitive impairments as well as a suggestion of the role of other neurotransmitter systems, such as the cholinergic one, mainly responsible for PDD. PD-MCI and PDD are among the most frequent NMS in PD: PD-MCI is six times more likely than MCI in age-matched controls and the PDD prevalence

is 80% after 15-20 years of disease. A clinically practical differentiation (dual-mode hypothesis) is based on the importance of executive deficits in the early phases of cognitive impairment in PD and on the evidence stressing the transitional role of posterior-cortical impairment on the progression of PD-MCI to dementia. Specific diagnostic criteria for PD-MCI and PDD and operative guidelines for the cognitive assessment have been developed. In addition to limbic and cortical spread of Lewy pathology, several other mechanisms are likely to contribute to cognitive decline in PD, and the evidence consistently suggests that low cerebrospinal fluid levels of amyloid- β 42, as well as increased tau levels, predict future cognitive decline and PDD. The impact of certain genetic variations on cognitive function has also been established, including links between cognitive decline and polymorphisms affecting SNCA, COMT, MAPT, APOE, and GBA genotypes.

PL-14

DEMENTIA WITH LEWY BODIES (DLB)

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Dementia with Lewy bodies (DLB) probably accounts for up to 7.5% of all clinically diagnosed dementia cases in older people, although this figure varies greatly between different clinics. At least as many additional cases exist with a combination of Alzheimer disease (AD) and Lewy pathology, and these cases are very likely misdiagnosed clinically as AD. Evidence to support these statements will be given from the recent UK NIHR Diamond –Lewy study and US-ADNI. The clinical diagnosis of DLB is made using the International Consensus criteria which were formulated following meetings in Newcastle upon Tyne in 1995 and 2003, and these criteria have been widely cited and used. The latest revision, <http://n.neurology.org/content/neurology/early/2017/06/07/WNL.000000000004058.full.pdf> (Open Access) was published in 2017. The new guidelines adopt a more structured approach, clearly distinguishing between clinical features and biomarkers, which the earlier versions did not. Attention is now moving towards clinical diagnosis of DLB at the prodromal stage, and operationalised criteria are in the process of construction. The polysymptomatic nature of DLB presents significant management challenges to patients, carers and clinical teams alike, compounded by the fact that the evidence base for recommending management options in DLB is limited. Recent systematic reviews and expert reports are leading to the formulation of best practice guidelines. The initiation of clinical trials in DLB suggests that new treatments may also soon become available. Applicable tools: MMSE-II, CLOX, ACE-III, EXIT25, Trail Making Test, WCST, Booklet Category Second Edition, CVLT-II, BVRT, Hopkins Verbal Learning Test Revised, - 2, Rorschach Ink Blot Test, Dementia Rating Scale-2, RBANS™ Update, Delis-Kaplan Executive Function System, DAFS, AFABS, Letter correction sample, 10-word learning.

PL-15

BIOMARKERS FOR DEMENTIA: WHAT THE FUTURE HOLDS?

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Neuroimaging, cerebrospinal fluid (CSF) and blood-based biomarkers potential has been extensively explored in improving the accuracy of the clinical diagnosis of different dementia subtypes. These dementia biomarkers need to reflect the specific dementia-causes in vivo, provide insights into the underlying pathophysiology, and be used as outcome measures in clinical treatments and/or trials. Although several neuroradiological and CSF biomarkers are currently recommended for clinical use

(i.e. NICE guidelines for dementia), a large number of potential neuroradiological and peripheral biomarkers remain in varying stages of research and development. I will review the currently available peripheral biomarkers for the three most common forms of dementia, Alzheimer's Disease, Vascular Dementia and Dementia with Lewy bodies, and give an overview of research advances that may be used in near future in a routine clinical setting.

PL-16**PROGRESS AND CHALLENGES IN FRONTOTEMPORAL DEMENTIA RESEARCH****Elka Stefanovska****PL-17****CLINICAL AND PATHOPHYSIOLOGICAL ASPECTS OF VASCULAR DEMENTIA****Raj N Kalaria***Institute of Neuroscience, NIHR Biomedical Research Centre, Newcastle University, Newcastle upon Tyne, United Kingdom; E-mail: raj.kalaria@ncl.ac.uk*

Worldwide vascular dementia (VaD) is considered the second most common type of dementia. Current evidence suggests that cerebrovascular disease (CVD) and vascular risk factors increase risk of cognitive impairment, which is much more common in the elderly than frank dementia including that caused by Alzheimer disease (AD). In addition to measures taken to control vascular disease, recent years have seen increased efforts to find relevant biomarkers for early diagnosis and subsequent management. With reference to VaD, high burdens of white matter changes (WMHs on MRI), small vessel disease (SVD), amyloid angiopathy, cortical infarction and hippocampal sclerosis have been independently associated with cognitive dysfunction. Atherothromboembolism attributed to large vessel occlusive disease and subcortical lesions (including the white matter) described by SVD are considered to be the main causes of VaD. SVD has become an important objective because it is common in the elderly. The current radiological definition of SVD includes lacunar infarcts, perivascular spacing, focal atrophy, microbleeds and microinfarcts. These SVD features are invariably described in different dementias even if thought to result from parallel processes with no interactions between vascular and neurodegenerative changes. SVD accounts for about 25% of all conditions, which involve transient ischaemic episodes and strokes. It also entails tissue changes affecting arteries, arterioles, capillaries and small veins that are associated with variable degrees of impairment. Among post-stroke survivors who develop dementia, particularly VaD more than 50% have strong evidence of SVD. Several inherited forms of SVD causing cognitive impairment and dementia have been described in the past two decades. CADASIL, the most common type, is characterised by lacunar infarcts accompanied by diffuse white matter changes and severe arteriolosclerosis in the general absence of risk factors for CVD. Recent elucidation of less common hereditary small vessel diseases include CARASIL, RVCL and COL4-related conditions. Other studies indicate that during ageing systemic and cerebrovascular factors modify the brain to increase development of AD-type pathology and cause dementia. Medial temporal lobe atrophy (MTA) is frequently associated with AD but there is also evidence from our post-stroke dementia studies that there is a vascular basis for MTA and neurodegeneration. The substantial clinical and pathological overlap between AD and VaD with an increasing burden of mixed pathology in the very old suggests an interaction between vascular and neurodegenerative processes. It is abundantly clear that the combination of vascular pathology and neurodegenerative changes are additive at each level of pathology lowering the threshold for development of dementia. Is VaD in old age, the result of two different lobar processes such that vascular factors or disease affects the frontal lobe whereas neurodegenerative changes largely propagate from the temporal lobe but there are

synergistic effects on cognition through cortico-cortical disconnection?

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PL-18

ARE DEMENTIA WITH LEWY BODIES (DLB) AND PARKINSON'S DISEASE DEMENTIA (PDD) THE SAME DISEASE OR NOT?

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Dementia is a frequent but often unrecognized problem in advanced stages of Parkinson disease (PD). Usually, PD is considered as mostly a motor disease, but non-motor symptoms are influencing the quality of life the most and they are the most important reason for institutionalization of PD patients. The point prevalence of Parkinson's disease dementia (PDD) in PD patients is around 30% and around 10% of a PD population will develop dementia per year. Risk factors studied so far are: higher age, more severe parkinsonism, in particular rigidity, postural instability and gait disturbance, and mild cognitive impairment at baseline; and also male gender, education, depression, visual hallucinations can influence on that. There are a lot of different biomarker studies (from laboratory to novel structural and functional imaging techniques) trying to predict pre-dementia stages of cognitive impairment in PD, when we can try with researching of some neuroprotective treatments. We know about limbic and cortical spread of Lewy pathology. There are known role of low cerebrospinal fluid levels of amyloid- β 42, the APOE* ϵ 4 allele, GBA mutations and SCNA mutation. Dementia can be seen in familial forms of PD such as PARK1 and PARK8.

Dementia with Lewy bodies (DLB) is a neurodegenerative disease resulting in dementia. It is the second most common neurodegenerative dementia after Alzheimer's disease and the most common neurocognitive disorder with Lewy bodies, but still often unrecognized. Incidence of DLB is 5.9 cases per 100,000 person-years. It shares clinical, genetic, neurochemical, morphological and pathological features with Parkinson disease (PD), the most frequent synucleinopathy and Parkinson disease dementia (PDD). Also, DLB has unknown etiology. PDD and DLB are characterized morphologically by widespread cortical and subcortical α -synuclein/Lewy body plus β -amyloid and tau pathologies. Even though the diagnostic criteria for these neurodegenerative diseases are clearly established, and recently revised for LBD, their clinical diagnosis is often difficult. The clinical features of DLB and PDD include cognitive impairment, parkinsonism, visual hallucinations, and fluctuating attention. Despite considerable clinical overlap, their diagnosis is based on an arbitrary distinction between the time of onset of motor and cognitive symptoms: dementia often preceding parkinsonism in DLB and onset of cognitive impairment after onset of motor symptoms in PDD. Previous studies have shown more pronounced cortical atrophy, elevated cortical and limbic Lewy pathologies (with APOE ϵ 4), apart from higher prevalence of Alzheimer pathology in DLB than PDD. These changes may account for earlier onset and greater severity of cognitive defects in DLB. Clinical management of both disorders includes cholinesterase inhibitors, other pharmacologic and nonpharmacologic strategies. Currently, no disease-modifying therapies are available.

In conclusion, although these disorders overlap in many aspects of their presentations and pathophysiology they differ in other elements such as timing of cognitive behavioral and motor symptoms, medications response, and neuropathological contributions. For now, we think they are a part of an α -synuclein-associated disease spectrum (Lewy body diseases), from incidental Lewy body disease and non-demented Parkinson's disease to PDD, DLB, and DLB with Alzheimer's disease at the most severe end.

PL-19**NEUROPSYCHOLOGICAL ASSESSMENT OF DEMENTIA****Hartmut Lehfeld***Department of Psychiatry and Psychotherapy, Memory Clinic, Paracelsus Medical University, Nuremberg, Germany*

The neuropsychological assessment of elderly patients suffering from cognitive decline may serve various purposes, e.g., screening for dementia, aiding differential diagnosis, staging the severity of cognitive deficits, monitoring disease progression or scientific work. Assessing the cognitive abilities of patients using (more or less) standardized tasks has a long tradition in psychiatry/neurology. For example, Alois Alzheimer when interviewing his famous first patient at the beginning of the 20th century, asked questions which also can be found in modern dementia tests. In 2013, the diagnostic manual DSM-5 has defined six cognitive domains which should be taken into account in a complete neuropsychological work-up: attention, executive function, learning and memory, language, perceptual-motor function and social cognition. For each of these domains, empirically validated test instruments are available for use with cognitively impaired patients suspecting dementia. In the first section of the presentation, a variety of tests covering these six domains will be presented (amongst them CERAD-NP and the SKT).

Meanwhile, there is ample evidence that - due to different brain pathologies - various types of dementia (i.e., Alzheimer's, vascular, frontal, Lewy-body, Parkinson, depressive pseudodementia) show different cognitive profiles. E.g., in dementia of Alzheimer's type impairment of episodic memory is the core symptom, whereas in vascular dementia especially a slowing of information processing as well as executive difficulties may be expected. Therefore, in the second section of the lecture typical profiles of various dementia subtypes will be outlined highlighting the most striking differences in neuropsychological test patterns. Test records from Nuremberg Memory Clinic will serve as examples. The presentation will help early career professionals to select adequate test instruments for neuropsychological assessments.

PL-20**DEMENTIA CARE AND SOCIAL INCLUSION****Ninoslav Minica***University Psychiatric Hospital Vrapče, School of Medicine, University of Zagreb*

We are living in the World which is becoming older and older, and in the near future about 1/3 of population will be older than 65 years e.g. retired. People who are employed are more engaged in social relationships while they are on daily bases communicating with others. When people are younger their families usually have more members. In brief, loneliness can be more present in elderly. So, society should offer more possibilities to older people to socialise, and more effort should be put in projects and programmes helping elderly to participate in group activities. This is believed to work as a risk reduction for developing dementia. But, if unfortunately, dementia develops, it is very important to be recognised early. Standard pharmacological treatment with antidementia drugs should be given, but also non-pharmacological approach is crucial in management of dementia. There are a lot of strategies, but individual approach, person centred oriented, gives best results. Art therapy, music therapy, dance therapy, are some of preferred solutions in dementia care for better social inclusion. Alzheimer's Café is usually a nice way to bring families together, out of their homes, and MemoryWalk can help to fight stigma. In the future, assistive technology will, for sure, become more important for people with dementia to keep them longer independent, and will also help those single families, to raise their quality of life. International Day of Older Persons

(October 1st) and World Alzheimer's Day (September 21st) are two days when we are claiming that elderly should be fully incorporated in society, but we need to prove it in our everyday life, making dementia friendly society.

PL-21

NON PHARMACOLOGICAL INTERVENTIONS FOR PATIENTS WITH DEMENTIA AT THE BEGINNING OF 21ST CENTURY

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Chair of Panhellenic Alzheimer Federation

Coordinator of Laboratory of Neurodegenerative Diseases

Neurodegenerative dementias are chronic, progressive, devastating disorders which in early stages are characterized by cognitive problems. In addition dementia influences activities of daily living, behavior, and psychological problems, also known as BPSD (Behavioral and Psychological Symptoms in Dementia) and great levels of anxiety, burden and depression of caregivers. The most frequent dementia is Alzheimer's disease (AD). There are different stages of AD: Asymptomatic, Mild Cognitive Impairment, early AD, moderate AD and severe AD. There are only symptomatic medications for Alzheimer's disease until today.

Mild Cognitive Impairment, mild dementia and non-pharmacological interventions

There are no medication for MCI or asymptomatic AD. There are data in many studies confirming the effectiveness of cognitive training in MCI patients, but also physical exercise-dancing, MEDIT diet and ICT care systems. Cognitive training is the most appropriate method to practice and enhance specific cognitive abilities, such as language, memory, attention also in patients with mild dementia. Some of them, have shown that cognitive training can also improve the instrumental activities of daily living for example Olfactory function.

Behavior problems in dementia and non-pharmacological interventions

Sensory Stimulation interventions such as Music therapy, Massage therapy, Multi-Sensory environment/ Snoezelen, Acupuncture, Bright Light Therapy and Aromatherapy have been used for different behavioral problems. There is a debate about the results.

Caregivers and non-pharmacological interventions

There is a strong need for effective and cheap caregiver interventions in order to efficiently support the informal dementia caregivers. So far, the psychological interventions –education support, family therapy seem to have a positive impact on the self-esteem depression and anxiety of the dementia caregivers.

Obstacles

1. There are not well organized health nets for patients with dementia. A well structured net is consisted of ICT system with a technician-coordinator, general practitioners, specialists, pharmacist, community nurses, social workers, occupational therapists, physiotherapists, dietitians, day centers, nursing homes, hospices.
2. Even using ICT services, which are cheaper, we'll meet the problem that many elderly have no idea of ICT solutions in many developing countries.
3. It is difficult to have money from EE to organize at least in some countries first and then to organize also in other countries
4. We need funding

PL-22**QUALITY OF CARE FOR PERSONS WITH DEMENTIA: ACTIVITIES OF ALZHEIMER EUROPE****Iva Holmerova**

Alzheimer Europe is an umbrella organisation of 40 Alzheimer societies in 35 countries across Europe. The main aims of Alzheimer Europe are: to provide a voice to people with dementia and their caregivers, to make dementia a European priority, to promote a rights- based approach to dementia, to strengthen the European dementia movement, and to support dementia research. Quality of care for persons living with dementia is an important and frequently discussed issue. Persons with dementia are one of the most vulnerable groups of residents/patients in long-term care institutions and the prevalence of dementia in these institutions is high across Europe. Therefore, in its Dementia in Europe Yearbook 2017, Alzheimer Europe focused on standards for residential care facilities. It provides an overview of legislative frameworks and standards for residential care facilities in Europe, with an emphasis on the physical environment, the workforce in this field, provision of care, rights of people with dementia, end-of-life care, and abuse and restraint.

There are different methods with which to improve care for persons with dementia. However, their feasibility and success depend on how these methods are adapted to the local culture and conditions. One example of this is the quality improvement system designed by the Czech Alzheimer Society. The Czech Alzheimer Society developed the 'Vážka' certification system following a series of workshops, focus groups and meetings with care providers, persons living with dementia and family caregivers, and consultations with specialists. The aim was to establish standards that were achievable within the complex system of dementia care in the Czech Republic. Quality criteria were evaluated in practice during a pilot evaluation project and prepared for certification.

Over a relatively long implementation period, the 'Vážka' criteria have been found to be meaningful and valid. They need to be adapted slightly with any increase in the quality of care, but they need not be radically changed or updated. After more than a decade of experience and with more than 60 certified services, it can be reliably assumed that the system is appropriate for measuring good care practice for persons with dementia in the actual conditions of the Czech Republic, and for distinguishing good care from unacceptable care.

PL-23**COGNITIVE SYMPTOMS WITHIN VARIOUS PSYCHIATRIC DISORDERS****Alma Mihaljević-Peješ***Clinical Hospital Centre Zagreb and School of Medicine, University of Zagreb, Croatia**alma.mihaljevic.peles@mef.hr*

Traditionally, various psychiatric symptoms such as depressive mood, anxiety, delusions, hallucinations, have always been recognized as the properties of psychiatric disorders. Cognitive changes, however, were systematically neglected. Psychiatric symptoms have always relieved with drug's treatment, while cognitive impairments haven't. Cognitive difficulties were considered as secondary symptoms and were expected to disappear with achieving remission.

Cognitive symptoms are accompanied by the majority of mental disorders, which significantly slows the recovery process and rehabilitation. Since cognitive functions increase employment prospects and quality of integration into the community, improving and maintaining cognitive abilities today is an essential goal of psychiatric treatment.

Cognitive symptoms today are leading symptoms of many psychiatric disorders. They differ in different mental disorders. Cognitive symptoms involve different aspects of functioning such as

attention, vigilance, working memory, executive function, episodic memory, semantic memory, visual memory, verbal memory, extinction of fear, processing speed, procedural memory, social skills, language and etc. Biological basis of cognition implies a complex network that operates in multiple time units and includes different dimensions: from cellular cascades to neural circuits. Molecular cognition substrates such as G protein-bound receptors, ion channels, transporters and other proteins involved in neuromodulation, represent potential drug targets in cognitive impairment. Modern drugs targeting these substrates and do not impair cognitive functions. Therefore, we are faced with development of new drugs and methods in the treatment of mental disorders. In modern psychiatric treatment, cognitive difficulties with other psychiatric symptoms, must be one of the primary goals of treatment, which will be achieved through administration new drugs, psychotherapy, social skills training and modern technology. Conclusion: Quality of care for persons with dementia is a complex issue that should be tackled on different levels. Joint efforts of Alzheimer Europe and its national organisations may lead to care quality improvements on European level. This publication was supported by the research project“

PL-24

COMMUNICATION SKILLS FOR INTERVIEWING ELDERLY AND PEOPLE WITH DEMENTIA

Alma Dzubur Kulenovic

PL-25

SOME CHALLENGES IN TREATMENT OF OLDER FORENSIC PSYCHIATRIC PATIENTS

Vesna Šendula Jengić

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A considerable number of forensic psychiatric patients are older persons. Here we have to distinguish between the elderly first-time criminal offenders and criminal offenders who aged in a forensic psychiatric facility. They often have significant cognitive impairments which limits the possibilities of rehabilitation and resocialization.

The author will talk about the most frequent issues related to the diagnostics, treatment and prognosis of the treatment of older forensic psychiatric patients and present a case with Capgras Syndrome. Is the best solution for the patient also the best one for the environment? What are the legally permitted alternative possibilities of treatment? Primary and especially acquired cognitive impairments significantly affect the psychopathology, clinical presentation, prognosis and outcome of treatment.

PL-26

DEMENTIA IN PEOPLE WITH INTELLECTUAL DISABILITY

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The increased life expectancy of people with intellectual disability (ID) intensifies the need for age-specific support but age-related health concerns such as dementia have received little research attention thus far. Incidence of dementia in older people with ID are up to five times higher compared with the general population. The increased risk for Alzheimer's disease in people with Down syndrome (DS) is well established, but much less is known about dementia in adults with ID who do not have DS.

The evidence base for interventions in dementia in people with ID is very limited. Since most adults with ID are low-educated it is difficult to diagnose dementia based on general neuropsychological batteries or conventional dementia screening tools. The premorbid level of cognitive abilities cannot always be used as a marker of progression due to the vagaries of individual intellectual and conceptual development. That highlights the need to use measures with strong psychometric properties, dementia-related ID specific scales is preferable, mainly in combination with the ICD or DSM criteria, as part of the screening, assessment and diagnostic process. Screening may be useful in this population given the high incident rates, particularly as more effective treatments become available. Studies to explore the underlying aetiological factors for dementia associated with intellectual disability could help to improve services for this group of vulnerable individuals identifying novel protective and risk factors.

PL-27**COGNITIVE CHANGES IN MULTIPLE SCLEROSIS****Enra Suljic****PL-28****THE ROLE OF COGNITIVE TRAINING IN PATIENT WITH MILD COGNITIVE IMPAIRMENT****Natasa Klepac***Department of Neurology Clinical University Hospital Zagreb, Kispaticeva 12, Zagreb 10 000*

Cognitive training (CT) has generated considerable attention as a safe and inexpensive intervention that aims to maintain cognition in older adults. CT involves guided drill-and-practice on standardized tasks designed to load on specific cognitive processes, typically without explicit teaching of memory or problem-solving strategies. CT can target single or multiple domains and usually adapts task difficulty to individual performance. Recent randomized control trials and meta-analyses of experimental studies indicate positive effects of CT on the cognitive function of healthy older adults. Furthermore, a large-scale randomized control trial with older adults, independent at entry, indicated that CT delayed their cognitive and functional decline over a five-year follow-up. This supports CT as a potentially efficient method to postpone cognitive decline in persons with mild cognitive impairment (MCI) and CT as therapeutic option able to prevent or delay cognitive or functional decline. Training in elderly with MCI had greater effect in the younger old and more cognitively preserved individuals. In MCI, CT is efficacious on global cognition, memory, working memory, and attention and helps improve psychosocial functioning, including depressive symptoms. Effect of CT was corroborated by a moderate effect size on common clinical measures of global cognition (mainly the Mini-Mental State Examination). Moderate effect sizes on memory is encouraging, as amnesic MCI profiles are at higher risk for dementia conversion. Participants in CT groups improved significantly over the intervention period but there are still insufficient data to determine whether training gains can be maintained over the long-term without further training. Cognitive interventions can contribute toward promoting health and independence among patients with MCI. Further investigations in large samples with long follow up period are now warranted to verify the role of cognitive interventions as reliable tool to prevent mental health.

WORKSHOPS

WS-1

BUILDING GLOBAL PSYCHIATRIC RESEARCH NETWORKS: OPPORTUNITIES FOR LOW AND MIDDLE INCOME COUNTRIES AND EARLY CAREER INVESTIGATORS

Thomas G. Schulze

Thomas G. Schulze, WPA Secretary for Scientific Sections, invites all congress participants to an interactive session aimed at discussing research opportunities for clinicians and scientists from LAMIC, in particular early career investigators. What are the chances and challenges? What are potential pitfalls and impediments? Can we truly build global research partnerships or will research in LAMIC be limited to “research colonialism”? What are realistic goals? In what way can WPA help? In this workshop, the WPA will also inform about the soon-to-be-launched “Education, Science, Publication, and Research Initiative (ESPRI)” that will provide seed funds to projects in LAMIC.

WS-2

DRUG TREATMENT IN DEMENTIA: WHAT IS APPROPRIATE?

Gabriela Stoppe

HOW TO REDUCE IRRATIONAL POLYPHARMACY IN PATIENTS WITH DEMENTIA

Matej Stuhec

Differences in the efficacy and tolerability of drugs in the elderly compared to younger patients can have a significant impact on clinical outcomes. Due to frequent comorbidities in the elderly, polypharmacy is the rule rather than the exception. This proposed joint workshop of the Section of Psychopharmacology and the Section of Old Age Psychiatry will address a neglected topic: how to improve efficacy and safety of psychopharmacological treatment in the elderly in the in real clinical situations, where patients have many drug-related problems. In spite of the clinical importance of the topic, the reality is that elderly patients are excluded from many clinical trials and consequently this age group is underrepresented in metaanalyses as well. Experts in geriatric psychiatry and psychopharmacology will specifically address the use of hypnotics, the psychopharmacological treatment of mood disorders, polypharmacy, drug interactions and drug discontinuation in this population. The participants will learn how to improve outcomes of elderly patients who need psychopharmacological treatment by using medication reviews and well planned drug prescriptions and discontinuations and how to improve their prescription practices.

WS-3

DEMENTIA AND SUICIDE- INCREASED RISK OR EARLY SIGN

Gorica Djokic, Slavica Djukic Dejanovic

Clinic for Mental Disorders Dr Laza Lazarevic

Suicidal ideation and suicide attempts are much rarer in the late stages of dementia. Contrary to that, the risk of complete suicide is increased during the early stages of neurocognitive decline. Severe cognitive impairment and executive dysfunction might be protective against suicide planning. But, lot of factors could contribute to increased suicide rate following the diagnosis of dementia: the awareness of cognitive decline, loss of complete independence, increased prevalence of

behavioral and psychiatric manifestations of dementia especially mood and adjustment disorders, impaired executive functioning and decision making, disinhibited behavior and still unimpaired abilities to plan and complete a suicide act. Despite this, there is no clear causal relationship between dementia and suicidal behavior. Some findings suggest that suicide and suicide attempt in patients with mild cognitive impairment or early stages of dementia could be a consequence of the neurocognitive impairment. Accumulation of beta amyloid directly interfere neurobiological pathways of suicidal behavior, and could be a potential risk factor for suicide owing to its association with depressive symptoms that are frequently present in the early stages of dementia, and due to its consequences on neuronal functioning, in particular on serotonergic dysfunction, impaired stress response and brain inflammation. Behavioral and psychological symptoms of dementia (BPSD), also known as neuropsychiatric symptoms or non-cognitive symptoms which affects up to 90% of people with dementia and may occur several years before cognitive symptoms. Assessing for the presence of depression in this population is necessary but not always likely to be sufficient in determining suicide risk.

WS-4

PRIMARY CARE MENTAL HEALTH IN OLDER ADULTS – A GLOBAL PERSPECTIVE

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Primary Care Mental Health in Older Adults – a global perspective is a resource book to support a growing population of older adults who need to be looked after better in the community recognising the challenges faced by older adults with mental health difficulties and looking for innovative solutions that support the dignity of older adult whilst embracing new technology. As we celebrate the 40th anniversary of the Alma-Ata Declaration, we need to recognise that not everyone has fully benefitted from the opportunities provided by the move to primary care¹ especially many older adults with mental health difficulties. We can do better, and the world can do better but, for this to happen, primary care needs to be more receptive to the special needs of older adults with mental health difficulties and better skilled to address these common problems. In 1978, the world had a total of 4.287.000.000 habitants; 248.998.000 of them were over 65 years of age representing 5.81% of the total population. Forty years later, the world has a total population of 7.530.000.000 habitants; 654.568.000 of them are over 65 years of age representing 8.70% of the total population. Older adults are now the group with the greatest growth rate². In the context of the rapid growth in numbers of the older adult population, the mental health of older adults has become a huge challenge for all concerned, especially with the high prevalence of mental health issues in this group. The ageing world population needs to be central in all policies and programmes in order to enable health systems to be more equitable, inclusive and fair. Services need to be designed to respond to the mental health needs of older adults; educational programmes need to be offered for professionals to improve their specific skills to treat and care for this important group. Carers of older adults with mental health difficulties are an important resource and need to be supported to prevent their own burn out. The population needs to be educated about the ageing process and encouraged to be advocates for older adults with mental health difficulties to combat misconceptions, prejudices, stigma and discrimination³ and we have provided some resources that can be used to inspect places where older adults with mental health difficulties can be cared for. Keeping up with technological advances and innovations is very important in delivering quality care to older adults with mental health difficulties to support their continuing independence and dignity and we have provided some examples of this. Integrated and collaborative care between primary care, specialists, social services, the voluntary and charitable sector, patients, carers, families and

government bodies should always be considered and embraced when developing care packages for older adults with mental health difficulties^{5, 6, 7}. The WPA-Lancet Psychiatry Commission on the Future of Psychiatry⁸ has identified several priority areas for mental health over the next decade including health-care system reform embracing stepped care, increased use of multidisciplinary teamwork, more of a public health approach, and the integration of mental and physical health care. The collaboration between primary care teams and other sectors of the health care system, as well as improving knowledge and skills will help to improve the mental health care of older adults.

O-1**CEREBROSPINAL FLUID BIOMARKERS IN EARLY ONSET DEMENTIA**

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Early-onset dementia (EOD) diagnosis is often challenging due to the overlapping symptoms between the different degenerative and non-degenerative conditions. The objective of this study is to compare the constellation of Cerebrospinal Fluid (CSF) biomarkers of neurodegeneration between several EOD conditions, categorized by clinical symptoms. We investigated the levels of Phospho181-tau (p-tau), Total-tau (t-tau), Beta-amyloid1–42 (Abeta42) in the CSF of n = 50 patients with Frontotemporal Dementia (FTD) and Early onset Alzheimer's Disease (EOAD). The FTD patients were further subdivided into behavioural variant (bv-FTD, n = 18) and Primary Progressive Aphasia (nfPPA, n = 7). The EOAD patients comprised both typical (n = 14) and atypical forms (n = 11). The diagnosis was based on the revised criteria for AD, FTD, and PPA. Patients were also assessed with neuroimaging and a detailed neuropsychological battery, including instruments for evaluating neuropsychiatric, emotional and cognitive status. Results: CSF Abeta42 level was significantly lower in typical and atypical EOAD in comparison with PPA and bv-FTD, whereas t-tau and p-tau levels were significantly higher, respectively. CSF ratio of CSF t-tau/Abeta42 was significantly lower in FTD than in EOAD. In subtype groups, the CSF ratio of CSF t-tau/Abeta42 was significantly higher in PPA than in bv-FTD. The biomarker profile of EOAD was quite similar between typical and atypical forms of EOAD, whereas FTD subtypes did not seem to have a clear biomarker profile. Magnetic resonance imaging rating scales showed that CSF tau levels correlate significantly with cortical atrophy. Conclusion: Diagnosis and especially differential diagnosis of EOD would benefit from new serum/CSF biomarkers in addition to conventional neuroimaging markers and detailed neuropsychological, neuropsychiatric, and emotion processing assessment.

O-2**EARLY-ONSET ALZHEIMER'S DISEASE: A CASE REPORT**

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Background: Early-onset Alzheimer's disease (EOAD) is defined as AD with onset of symptoms before age 65 and accounts for 5–10% of all the AD cases. It is difficult to confirm a diagnosis of EOAD because patients sometimes have non-specific cortical features, such as psychiatric symptoms, executive functional impairment, and pyramidal symptoms, along with typical symptoms, such as recent memory impairment and disorientation. Case presentation: A right-handed fifty-year-old woman with psychotic symptoms was admitted at the University Clinic of Psychiatry, department for biological psychiatry. Three months before the admission she developed memory impairment, disorientation, psychotic and aggressive behavior, visual hallucination and dressing apraxia. She had frontal lobe symptoms, pyramidal signs, and extrapyramidal signs with dementia. Psychotic symptoms were reduced with antipsychotic medication. Neuropsychological examinations were not possible because of her condition. Brain MRI showed diffuse atrophy of the cerebral cortex (especially frontotemporal regions) and hippocampus. She was diagnosed with EOAD. Donepezil and memantine were included in the pharmacological treatment. Discussion and conclusion: Pa-

tients with EOAD may have more aggressive forms of AD. The consequences of being diagnosed early with a disease that implies progressive decline of cognitive abilities and activities of daily living (ADL) performance, are enormous. This case study highlights the clinical importance of an earlier diagnosis and treatment initiation in EOAD. The predominant therapy for AD is cholinesterase inhibitors (ChEIs). Placebo-controlled clinical trials with a duration of up to 1 year have shown that ChEIs are effective in slowing functional decline. Observational studies of ChEI treatment have suggested that the effect of ChEIs on ADL may last longer. These findings stress the importance of early detection of EOAD and initiation of treatment to increase the effects of antidementia therapy.

O-3

QUANTITATIVE EEG DIFFERENCES IN SUBTYPES OF FRONTOTEMPORAL DEMENTIA

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Uskudar University-Turkey

Aim: Frontotemporal dementia (FTD) is the second most common group of neurodegenerative disorder following Alzheimer's Disease; and characterised by degeneration of frontal and/or temporal lobes. FTD can be classified as behavioral variant FTD (bvFTD) and primary progressive aphasia (PPA). The aim of this study is was to show electrophysiological differences in bvFTD and PPA. **Method:** 12 patients with bvFTD and 15 patients with PPA were included in the study. EEG was recorded from 19 electrode sites based on international 10-20 system. Each participant's data were averaged across the recording epochs for each electrode, and the mean absolute power values were computed for delta, theta, beta and alpha frequency bands. For all frequency bands, inter-hemispheric and intrahemispheric coherence was calculated. **Results:** For absolute power; decreased theta power at all regions was found in bvFTD group as compared to PPA group. Regarding coherence; increased beta coherence at left centoparietal region and increased alpha coherence at inter-hemispheric frontal region was found in bvFTD as compared to PPA group. **Conclusion:** Our findings suggests that subtypes of FTD vary in resting-state EEG and especially decreased theta power may reflect bvFTD.

O-4

EXECUTIVE FUNCTIONS IN CLINICALLY ASYMPTOMATIC HUNTINGTON'S DISEASE GENE CARRIERS

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Introduction: Huntington's disease (HD) is a neurodegenerative disorder caused by an expansion of CAG repeats in the huntingtin gene. The availability of genetic analysis for the diagnosis of HD now allows for a careful study of clinically asymptomatic stages of the disease. Research so far has suggested that there is evidence for preclinical cognitive dysfunction in HD. The aim of this study was to investigate our group of clinically asymptomatic HD-gene carriers to see if deficits in executive functions already occur in and which specific executive functions are impaired compared to matched control group of healthy individuals (age, sex, education distribution). It has been suggested so far that cognitive impairments relate to a common deficit in inhibitory control mechanisms (breakdown in the mechanisms of response selection), under the control of striatocortical structures. **Methods:** eighteen clinically asymptomatic gene carriers (AGC) (9 male and 9 female, mean age 34 years) which were free of movement disorder, affective disorders and/or psychotic symptoms according to UHDRS clinical scale evaluation were enrolled in our study together with a matched control group of healthy individuals. Executive functions were evaluated using a broad

neuropsychological assessment. Results: neuropsychological findings showed that the group of asymptomatic gene carriers already displayed significantly lower scores on some executive tests. The most significant differences were observed in TOL total rule violation score ($p=0.002$), CTMT1 time ($p=0.004$), SDMT total score ($p=0.005$) and Stroop color-word total score ($p=0.008$). Conclusions: The results point to a specific executive function deficits in HD AGC involving an impairment in shifting cognitive set, flexibly selecting relevant information, ability to learn new information, non-verbal fluency and rule-governed behavior. The results are in line with previous research findings with linking the striatum to processes of control over responding, and show an extensive striatal/cortical involvement in preclinical HD.

O-5

LATE ONSET EPILEPSY IN THE ELDERLY AND DEMENTIA

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Introduction: The incidence of epilepsy in elderly people is the highest in comparison with the incidence of epilepsy in other age groups. The reason is the growing percentage of the world elderly population and the growing possibility for cerebral lesions in elderly mostly due to stroke, vascular risk factors, neoplasms, head trauma and dementias. The incidence and prevalence of different dementias, mostly Alzheimer disease (AD), vascular dementia or mixt (AD)/vascular dementia is growing with age, starting from young elderly to old elderly, due to the growing of the world elderly population and the lack of cure for dementias. The aim: is to evaluate the bi-directional relationship between epilepsy and dementia in elderly people. Elderly people with epilepsy may have a high risk to develop dementia, and patients with dementia, particularly AD and vascular dementia may have high risk for developing epilepsy. Cognitive decline is associated with both dementia and epilepsy. Cognitive decline in elderly people with epilepsy may be due to AEDs, cerebral dysfunction and underlined pathology. There are research efforts to elucidate the common risk factors for epilepsy and dementias as tau and amyloid- β , hippocampal atrophy on MRI, temporoparietal hypometabolism, occult cerebrovascular disease and vascular risk factors. Material and methods: 73 patients with late onset epilepsy, over 65 years, and 20 patients with dementia aged 65-84 years, mean age 70 years sd 4,7 were analyzed clinically, neurophysiologically, neuropsychologically and with neuroimaging methods (brain CT and MRI). Results: Elderly patients with epilepsy manifested focal seizures. Structural lesions were frequent etiology, stroke was found in 16 elderly patients, neoplasm in 9 patients, traumatic brain injury in 3 patients and dementia in 7 patients. Epilepsy of unknown cause, but with vascular risk factors such as hypertension, diabetes, smoking, hyperlipidemia, obesity, lifestyle without physical activity were present in 38 elderly patients with epilepsy. Among 20 patients with diagnosis of dementia we found out only 1 male with diagnosis of epilepsy prior to the diagnosis of AD. His family history is positive, his mother suffers from late onset AD. There is a time delay for correct diagnose in both conditions until patients reach tertiary health care level. Seizures in elderly are assumed as non-epileptic events (TIA, syncope, drop attacks, pseudo-seizures) due to their comorbidities. The insidious start of symptoms and signs in dementia are assumed to be depression or are neglected until the cognitive decline become obvious. Conclusion: Having in mind the time delay in diagnosis of elderly epilepsy and early dementia and the bidirectional relationship of dementias and epilepsy, it is important to increase the awareness for that. Selection of new generation AEDs, instead of first generation AEDs is recommended to protect the cognitive functioning in elderly epilepsy patients. Vascular risk factors which were more frequent as etiology for epilepsy in the elderly should be treated as well as they are target in patients with dementias of vascular, mixt type or AD in order to reduce the risk for cognitive decline and disease progression.

O-6

EMOTIONAL AND AFFECTIVE SYMPTOMS IN PRECLINICAL ALZHEIMERS'S DISEASE

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In current clinical practice increasing number of treatment seeking individuals aged above 60, complain of increased emotional reactivity, irritability, emotional sensitivity and vegetative responses. These symptoms may refer to underlying anxiety, mood, personality or adjustment disorder, but may also be a warning sign of impending cognitive decline. These complaints should be viewed as a possible early affective changes in preclinical Alzheimer's disease, requiring treatment targeting neurodegeneration. In this review, the most common neuropsychiatric symptoms of anxiety, depression, disphoria, elation and irritability are reviewed in terms of clinical presentation and neurobiological links, with an emphasis on the significance of increased functional connectivity in regions of salience network which is critical for social and emotional processing. In conclusion, we suggest the conceptual framework which could help the clinician to apply strategies aiming to educate the patient about underlying nature of the symptoms, thereby strengthening the cognitive reserve, overcoming catastrophic responses and increasing the insight, which might can divert the vicious cycle of cognitive decline.

O-7

EARLY DETECTION OF DEMENTIA IN PRIMARY HEALTH CARE

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Primary health care, thus the General Practitioner, plays a critical role for early identification of patients with dementia. The dementia is still sub diagnosed, subtracted, and underdeveloped. Objective: to improve early detection of dementia in PHC and to raise awareness among family doctors for the early and timely diagnosis of dementia. Material and methods: 858 patients with one or more risk factors were examined with MiniCog-test and Mini Mental State Examination test (MMSE). Results: The analysis indicated that from the total number of subjects with suspected dementia, according to the results obtained from the MiniCog-test, 121 (14.1%) patients had score 0, 313 (36.6%) patients have score 1-2 and were suspected for dementia and score 3 - without dementia was found in 422 (49.3%) patients. The analysis of the results of the MMSE test indicated that of the total number of subjects with a risk of dementia, a total of 587 (68.6%) had a normal result, 153 (17.9%) had early dementia (score from 19 to 23), 91 (10.6%) were with moderate dementia (score from 10 to 18), and 25 (2.9%) with late dementia (score < 10). Women versus men have 1,937 times more likely to have moderate dementia compared to men. 4 (0.5%) patients were referred to specialists for further analysis were in total of the patients with a positive dementia finding, 2 (0.5%) male and 2 (0.4%) female. The majority of the respondents with a positive finding of dementia on MMSE and mini cog test, refused to go to a specialist examination, a total of 431 (50.3%), of which 174 (47.9%) of female patients, and 257 (52.1%) of male patients. Conclusion: Dementia is underdiagnosed in Macedonia. Early diagnosis of dementia allows starting therapy and improving the quality of life of the patients. Patients with suspected dementia do not want to go to the specialist for final diagnosis and treatment.

O-8**EFFECTIVENESS OF COMBINATION THERAPY FOR MODERATELY SEVERE MIXED DEMENTIA, INCLUDING CEREBROLYSIN**

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The purpose was to study the efficacy and safety of combination therapy with memantine and cerebrolysin in mixed (F 00.2) moderate dementia in an open clinical study. 70 women over 60 years old were included in the study. Group A (25 people) received a combined treatment with 12-week continuous course of memantine and the first 20 days intravenous drip of 20 ml cerebrolysin; Group B (25 people) received a combined treatment with 24-week continuous course of memantine and the first 30 days intramuscularly injection of 20 ml cerebrolysin; Group C (20 people) were treated only by memantine for 24 continuous weeks. Memantine dosage in all groups was comparable throughout the study. Methods: clinical and psychopathological, CGI - I, MMSE, IADL scales, taking into account the amount of time required for the care and supervision of their sick relatives. The anti-dementic effect occurred already after 10 weeks of therapy: a significant positive trend was observed in 86.6% of patients in group A and B and in 66.4% of patients in group C. There were statistically significant differences in the studied parameters, primarily in the CGI - I and scales MMSE with better results in groups A and B compared to group C. Differences in the studied parameters in groups A and B were obtained at week 14 with better results in group B, especially in the CGI-I and IADL scales. It should be noted that a longer treatment with a combination treatment, memantine + cerebrolysin, reduced the time spent by relatives in caring for patients. The best tolerability of the combined therapy was found with intramuscular administration of cerebrolysin (group B) than with intravenous (group A): statistically significant differences in symptoms of dizziness, rise in blood pressure, tachycardia, restless behavior, sleep inversion.

O-9**CURRENT AND FURTHER STRATEGIES OF ALZHEIMER DISEASE TREATMENT**

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Alzheimer's disease (AD), has an alarming rise in the global population. It is a progressive neurological and degenerative syndrome, recorded in around 35.6 million people worldwide in 2010, with predictions that this number will double every 20 years to over 100 million by 2050. The main pathophysiological features of AD include the presence of senile plaques that develop between neurons in the brain and neurofibrillary nodes that develop in neurons. These abnormal processes that affect cholinergic neurons cause a decrease in acetylcholine levels (ACh) in synapse This hypothesis was set up as the basis for treatment in terms of the use of cholinesterase synapse inhibitors, thus improving cholinergic neurotransmission. A 15 years ago approved the first AChEI for the treatment of mild moderate AD. Conditions of excessive exposure to a neurotransmitter glutamate or excessive stimulation of glutamate receptors leads to injuries or death of neurons. This is partly mediated by excessive activation of NMDA receptors. The physiological activity of the NMDA receptor is necessary for normal neuronal function, and their complete blockage would be clinically unacceptable. The adamantane derivative, memantine selectively blocks the excessive activity of the NMDA receptor without disturbing the normal activity. Memantin is a second option for medium and severe form of AD. Although both AChEI and partial NMDA receptor blockers have proven levels of efficacy, the clinical outcomes of patients' treatment with these drugs are considerably limited. Microscopic changes present in AD are well known for over a century, but

efforts have still not been made to identify adequate pharmacological agents that can block the synthesis and aggregation of amyloid b42 or the formation of neurofibrillary nodes. In recent years some new therapeutic strategies have been explored. This work concern on current and new therapeutic options, including anti-amyloid and anti-Tau approaches.

O-10

PRODROMAL TO MILD DEMENTIA IN ALZHEIMER'S DISEASE- CLINICAL ASPECTS AND DIAGNOSIS Gorica Djokic

Clinic for mental disorders Dr Laza Lazarevic

AD is a slowly progressive brain disease that begins before clinical symptoms are expressed. A small percentage of Alzheimer's cases develop as a result of mutations to any of three specific genes. These mutations involve the gene for the amyloid precursor protein and the genes for the presenilin 1 and presenilin 2 proteins. The greatest risk factors for late-onset AD are older age, having a family history of AD, and carrying the APOE-e4 gene (with possibility that last two risk factors are the same). 2011 NIA guidelines recognize that Alzheimer's disease progresses on a spectrum with three stages-an early, preclinical stage with no symptoms; a middle stage of mild cognitive impairment; and a final stage marked by symptoms of dementia, expand the criteria for Alzheimer's dementia beyond memory loss as the first or only major symptom, and recognize that other aspects of cognition, such as word-finding difficulty or judgment difficulty, may become impaired first. The hallmark pathologies of Alzheimer's are progressive accumulation of the protein fragment beta-amyloid outside brain neurons and twisted strands of the protein tau inside brain neurons. These changes are accompanied by the neuronal damage and death. Three biomarkers have been internationally established for diagnosis of Alzheimer's disease: beta amyloid A β 1-42, tau protein, and phosphorylated tau. These biomarkers are obtained from CSF and increase the validity for diagnosis. Radiotracer 11C-Pittsburgh Compound B (PIB) is currently the most studied radioligand for PET imaging of cerebral A β pathology. Preclinical Alzheimer's disease refers to completely asymptomatic individuals with biomarker evidence of Alzheimer's or individuals manifesting subtle cognitive decline but who do not yet meet clinical criteria for mild cognitive impairment. Mild cognitive impairment goes beyond normal issues of aging with level of cognitive decline that requires compensatory strategies and accommodations to maintain independence and perform activities of daily living.

O-11

DEMENTIA OR DEPRESSION IN ADULT INDIVIDUALS

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Introduction: Depression is one of the leading factors for serious delinquency in most of the world's more affluent ones, significantly worsening young people, women and elderly people. Late life depression is usually without heredity, with somatic comorbidity, without a clear depressive symptoms, with cognitive difficulties, the therapeutic response is poor and chronic with more serious residual difficulties and the risk of developing dementia. It is often unrecognized and misdiagnosed or untreated at all. Material and Methods: case reports of two patients over 60 years of age with different sex, treated hospital and outpatient. Patients were diagnosed according to ICD 10 classification by means of a clinically conducted interview, and psychological instruments. case 1: Patient at age 68, higher education, married, father and grandfather.

The first difficulties about 1 year ago, with withdrawal, variable irritable mood, work and social dysfunction, fear, numerous somatoform complaints, unrealistic ideas of ruin, persecution, disaster, significant decline in TT, confused, memory impediments. Healed outpatient without any success, sent to the Psychiatric Clinic for Treatment. Because of the suicidal risk treated intra-hospital, then daily hospital with Dg. F32.3 for three months. Psychological finding opinion, KTM finding for the age-free sign that would indicate dementia. Treated with SNRI. Venlafaxin up to 300 mg. antipsychotic in low doses Tbl. Risperidon 1 mg, followed by the overcoming of depressive symptomatology, improvement of cognitive function, work and personal function. case 2women, 71 years. high education, lives with her husband who is motionless. Third admission to the Clinic, Dg. F33, due to the appearance of an expressive symptomatology with pronounced restlessness, suicidal thoughts, and mourning of cognitive difficulties, such as forgetfulness, occasional disorientation, inability to carry out the routine obligations, difficulty in reasoning, often loss of objects and money. The corresponding psycho-diagnostic investigations were made in order to recognize the dementia percentage, but they were with an orderly finding. After several months of treatment with antidepressant, antipsychotic therapy and involvement in individual and group psychosocial treatment, there was an improvement in the plan of reduction of difficulties and more flexible functioning. Discussion: late life depression is often unrecognized or misdiagnosed or untreated at all. According to a survey done over several years involving approximately 3,000 subjects aged 60 years and more without dementia in about 6% of diagnosed depressive disorders. According to F. Lowry results in patients over 60 years of treatment with venlafaxine XR as the most suitable for treating depression in elderly Treatment of late depression according to medicine based on doctrines includes psycho-education of the patient and the family, psychotherapy CBT, treatment of comorbid somatic disease, SSRI and SNRI antidepressants long enough, second line with other antidepressants or addition of antipsychotics in small doses, regular monitoring of health care.

O-12

POST-TRAUMATIC STRESS DISORDER AND RISK OF DEMENTIA: THEORETICAL REVIEW

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Introduction: Over last 20 years interest has increased in the possible causal association between Post-traumatic Stress Disorder (PTSD) and dementia (primarily Alzheimer's disease and vascular dementia).

PTSD is associated with impaired cognition and can be also considered as a 'memory disorder'. The cognitive changes, that is seen in PTSD greatly reduces cognitive reserve and this can predispose to development of dementia. PTSD and dementia share common risk factors. PTSD is defined as a stress-related condition. Chronic stress is associated with alterations in hypothalamic-pituitary-adrenal axis function and raised pro-inflammatory cytokines. Reduced cortisol levels and allosteric down regulation of glucocorticoid system leads to chronic CNS inflammation and increased cognitive decline. Chronic stress is associated with damage to hippocampus and reduced hippocampal volumes. PTSD may also accelerate the general aging process. The combination of dementia and chronic PTSD may cause serious behavior problems in these patients. Literary review: The two biggest studies that have raised the possibility of a causal link between PTSD and dementia are: Yaffe et al. PTSD and risk of dementia among US veterans. This study used VA National Patient Care Database coding clinical information on patients seen from 2000 to 2007. This study involved 181,000 subjects; 53,000 with PTSD, 128,000 without PTSD. Qureshi et al. Greater prevalence and incidence of dementia in older veterans with PTSD. This study used the Veterans Integrated Service Network 16 Data Warehouse database (10 medical centers in south-central USA) coding clinical

information on patients seen from 1998 to 2008, and 10,481 subjects were included. Conclusions: In a predominantly male veteran patient, diagnosed with PTSD were at a nearly two time higher risk of developing dementia compared with those without PTSD. Mechanisms linking these very important disorders need to be identified and finding ways to reduce the increased risk of dementia associated with PTSD.

O-13

FRONTOTEMPORAL DEMENTIA AND CRIMINAL BEHAVIOUR

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Background: Frontotemporal dementia (FTD) is a progressive neurodegenerative disorder that affects the frontal and anterior temporal regions. The core features are transgression of social norms, loss of empathy and disinhibited acts. These behaviours, which are sometimes the first manifestation of a dementing condition, pose great personal, social, and legal burdens on the patients, their families and society. Objectives: To investigate the criminal behaviour among patients with FTD. Methods: A literature review was conducted by searching in PubMed database the terms: “frontotemporal dementia AND (criminal OR punishment OR sentencing OR legal OR violence)”. Articles were subsequently selected with regard to their scientific relevance. Results: Numerous studies have reported a high incidence of criminal behaviours associated with FTD. They range from traffic violations to sexual crimes and homicide. The actual standard for legal insanity requires an individual to be incapable of understanding the wrongness of his act as a result of a severe mental defect of reason. In this way, individuals with FTD are not legally insane, because they can recognize that their acts are immoral but are not concerned about the depravity or consequences. It could be argued that an offender with FTD may lack capacity to appreciate the immorality of his actions due to the neural impairments. Research on the neural abnormalities in FTD show that traditional sentences are ineffective and other forms of intervention may be more efficacious, like medication targeted to behavioural changes and avoiding noxious environments. Conclusions: It is extremely important to fully comprehend the nature and complexities of FTD. It is also fundamental to be aware that by targeting the behaviours of FTD with medication and regulating the environments in which offenders with FTD live, these patients may be successfully handled without civil commitment or other forms of impaired social control.

O-14

ALZHEIMER VERSUS VASCULAR DEMENTIA: CONNECTED OR NOT?

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Alzheimer’s and vascular dementia are both types of dementia. They have several symptoms and characteristics that overlap, but there are also some clear differences between them. Vascular dementia and Alzheimer’s have different causes. Vascular dementia is often caused by an acute, specific event such as a stroke or transient ischemic attack in which blood flow to the brain has been interrupted. It also can develop more gradually over time from very small blockages or the slowing of blood flow. Alzheimer’s have several ways to decrease the chance of developing, including exercise and maintaining an active mind, what causes Alzheimer’s to develop isn’t fully understood. There appear to be many contributing components, such as genetics, lifestyle, and other environmental factors. Risk factors for vascular dementia included diabetes mellitus, high

blood pressure, high cholesterol, coronary heart disease, and peripheral artery disease and for Alzheimer's risk factors include age, genetics (heredity), and general health. Both diseases' as a symptom's have cognitive impairments. In vascular dementia cognitive abilities often seem to decline in relation to stroke or a transient ischemic attack (TIA) and then remain stable for a time. In Alzheimer's the person's ability to think and use his memory gradually declines over time. In contrast to the step-like decline in vascular dementia, Alzheimer's is typically more like a slight, downward slope of a road over time. Vascular dementia is often accompanied by some physical challenge, and dependence of stroke localization but also dimension. Both the cognitive and physical impairments related to vascular dementia usually develop at the same time since they are often the result of a sudden condition like a stroke. In Alzheimer's often, mental abilities like memory or judgment decline initially, and then as Alzheimer's progresses into the middle stages, physical abilities like balance or walking show some deterioration. Several tests can help evaluate memory, judgment, communication and general cognitive ability, in both dementias. Along with those tests, an MRI can often clearly identify a specific area in the brain where a stroke affected his brain, but Alzheimer's is often diagnosed by ruling out other causes, rather than being able to pinpoint the diagnosis through a brain scan. Progression of vascular dementia it's variable, but also it's difficult to predict survival time for vascular dementia. Progression of vascular dementia depends on a number of lot of risk factors including the extent of the damage in the brain, in addition to your overall health condition.

O-15

PORTUGUESE NATIONAL PLAN FOR DEMENTIA – A FOCUS ON PREVENTION

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Introduction: In Portugal it is estimated that more than one hundred and eighty thousand people suffer from dementia, with a prevalence rate of 2,7%. With only forty to fifty percent of cases diagnosed, dementia has direct costs of more than thirty-seven million euros/year, just for medication. However, in the last few years, several non-governmental organizations have raised awareness to the insufficiencies in providing care to people with dementia in Portugal. Aim: To review the current Portuguese National Plan for Dementia. Methods: Literature and official reports review, selecting works relevant to the aim of study. Results: In 2016, the Portuguese government has set dementia as a priority for public health in the following years. A Task Force was created that year with experts from all around the country, aiming to produce guidelines that would help to shape a national strategic plan for dementia. The main strategic points identified were: intersectoral coordination and cooperation; time reduction for diagnosis and treatment; continuity of care in the community. A clinical care pathway was built with four stages: 1- Early identification; 2- Integrated Diagnosis; 3 – Planning Care; 4 – Therapeutic Intervention. The principles of accessibility, proximity, equity and continuity of care were identified as essential for the model. Resources distribution should focus on treating patients at home or in the community, working with family doctors and public health units. Results were presented in 2018 and the first pilot experiences will be held in 2019 in the area of cognitive training and rehabilitation in specialized day centers. Conclusion: Dementia is being acknowledged as one of the main priorities for public health in Portugal. A preliminary National Plan for Dementia was presented in 2018, and a final version is expected to answer to the patients, caregivers and society claims for a better response in this area.

O-16

HOW EFFECTIVE ARE SCREENING TESTS TO ASSESS COGNITION: COMPARISON OF TURKISH 3MS WITH NEUROPSYCHOLOGICAL TESTS IN A LARGE SAMPLE

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Background: Screening of the cognitive impairment and follow-up is essential in the primary care where detailed neuropsychological testing may not be available. A valid and easily applicable cognitive screening test is required. We aimed to compare the effectiveness of 3MS as a screening test with a detailed neuropsychological evaluation on different cognitive domains. Methods: The data of a clinically well-characterized cohort of both cognitively normal and impaired individuals were assessed. For convergent validity of 3MS; executive functions were assessed with Stroop, Trail Making and Visual Verbal Test; memory with Auditory-Verbal Learning test (AVLT) and Enhanced Cued Recall (ECR); attention with Digit Span; visuospatial functioning with Clock Drawing Test; verbal fluency with Semantic and Lexical Fluency Tests. Correlations were assessed between the items in the 3MS and corresponding test parameters. All raw scores were converted to z scores based on age, gender and educational norms in the Turkish population. (Funded by TUBITAK, 214S048). Results: A total of 471 individuals were evaluated (Mean age =70.7 (51-98), F:M=1.1:1, 28.6 % was cognitively intact). For the group as a whole, all correlations were significant. In particular, first and second recall items of 3MS were correlated with delayed recall of AVLT and total recall in ECR; similarities with Stroop Word-Color, Interference and Trail Making B Scores; fluency item with Semantic Fluency Tests, mental reversal item with Digit Span Backwards and construction item with Clock Drawing scores, albeit most correlations were weak to moderate. Discussion: The Turkish version of 3MS seems to be a valid test with regards to its power to measure cognitive abilities. For further understanding, additional analyses based on the cognitive status of the participants are required. Conclusion: Turkish version of 3MS has good convergent validity and can be used in primary care settings.

O-17

IMAGING BIOMARKERS IN ALZHEIMER S DISEASE.

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Alzheimer's disease is the most common cause of dementia. This disease is characterized by a significant loss of brain mass. Symptoms of this disease include loss of memory, loss of speech ability, problematic behavior, etc. The diagnosis of this disease is based on a clinical examination and various tests. The basic tests that are performed include MRI and PET, which can detect structural changes in the brain that are characteristic for this disease. Nowadays, biomarker test from cerebrospinal fluid are also important, namely, the determination of beta amyloid, total tau protein and phosphorylated tau protein. In this paper, I will present the way of diagnosing Alzheimer's disease with a particular emphasis on biomarkers from the cerebrospinal fluid. and neuroimaging biomarkers. The most important techniques used for this purpose are CT, MRI, PET and SPECT scan. Structural techniques are CT and MRI scan, while functional (metabolic) techniques are PET and SPECT scan. Today, structural techniques, especially MRI, are considered to be more important than functional in diagnosis, primarily because of their high spatial resolution.

P-1**DEMENTIA, DELUSIONS AND PSEUDO-DELUSIONS: A BOTTOM-UP THEORY REVISION****Gentian Vyshka***Faculty of Medicine, University of Medicine in Tirana*

The psychopathology of delusions in dementia has been indelibly denoted from top-bottom theories, with a very long psychiatric tradition explaining the issue as a cortical derangement. The reverse face of the entire issue has been poorly, if ever, scrutinized. The role of peripheral nervous system in the installing and the maintaining of delusive ideas and convictions, albeit elusive, need to be addressed. The hallmark of bottom-up theory relies upon distorted primary processing of peripheral stimuli, with the cortex ingenuously entering a vicious circle of false perceptions, and therefore of false beliefs. Some research suggests among other, that peripheral nervous system has intrinsic role in pain memory, thus contradicting previously cortically-oriented theories. Charles Bonnet syndrome illustrates how a distorted or a severely damaged sense of vision might produce florid psychiatric symptomatology. Apart from mere hermeneutical points of view, psychopharmacology itself will testify how difficult is to eradicate delusions with antipsychotics, classical or atypical ones. The fact that these drugs act on central synaptic pathways, and are almost neutral to peripheral nervous transmission of signals, will be another proof of how the periphery of the nervous system might be a starter of the delusions, instead of being a remote, inert and innocent part of the whole.

P-2**HIP FRACTURE AND DEMENTIA****Ljubinka Damjanovikj¹, Goran Aleksovski², Diana Peshevska³***HPI Skopje-Skopje¹**University Surgery Clinic "St. Naum Ohridski" Skopje²**Evropa Lek Farma Dooel³*

Patients with dementia have a higher incidence of hip fracture than other older patients. Patients with dementia are less recovery to the previous functional status following a hip fracture and require hospitalization or institutionalization, and have higher mortality rate.

P-3**PHARMACOTHERAPY OF AGITATION IN DEMENTIA****Vilma Videnova¹, Branislav Stefanovski², Nensi Manusheva², Snezana Pejkovska-Dimovska¹***¹Psychiatric Hospital Skopje**²University Psychiatry Clinic Skopje*

Although we tend to focus on the cognitive issues, the behavior of individuals with dementia is often the main problem that leads to institutionalization. Clinical guidelines recommend nonpharmacological approaches as the first choice in the treatment of behavioral and psychological symptoms [1]. Acetylcholinesterase inhibitors (AChEI) are the first-line pharmacological option, but challenging risky behaviors may persist despite their use. Antipsychotics are indicated in such cases, but there is very limited evidence to support the efficacy and safety of these medications for managing agitation in dementia [2]. Antipsychotics are prescribed most often for this indication and, at the same time, are related to the highest risk of adverse effects and increased mortality.

Compared with the common population, lower doses should be used and titrated gradually. When choosing the medication, pharmacokinetic and pharmacodynamic interaction with AChEI and memantine used by majority of patients with dementia should be considered [3][4].

P-4

THERAPEUTIC APPROACH TO PSYCHIATRIC DISORDERS OF PUERPERIUM

Jelena Stojanov, Miodrag Stanković, Miljana Petković, Dušan Simić
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Postpartum depression is the most studied postpartum psychiatric disorder that affects approximately 10–15% women worldwide, and a well confirmed cause of individual distress and suffering, associated with increased risks of marital conflict, impaired parenting and increased risk of cognitive, emotional, behavioural and other health problems in the offspring. The most acceptable approach to prevention includes the detection of risk factors during pregnancy. Risk factors with moderate to strong interconnection with postpartum depression include history of depression and previous psychiatric illness, depression and anxiety during pregnancy, changes in sleeping and eating, tobacco use, neuroticism and low self-esteem in mothers, stressful life events (violence or abuse), poor marital relationship, social support and quality of life. Risk factors that have more modest associations with PPD include low socioeconomic status and unemployment, inadequate maternal supply, younger age, being single, and unplanned or unwanted pregnancy. Although all women are susceptible to developing postpartum depression, potentially vulnerable groups can be ascertained during routine pregnancy care. For its potential implications for the mother, infant, and family, and that happens at such an important time in the infant's life, more convenient approach is needed for determining risk factors. Therefore, it is important that antenatal healthcare providers (including obstetricians, prenatal nurses, and family doctors), and women themselves are educated about these risk factors.

P-5

PROGRESSIVE SUPRANUCLEAR PALSY

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Introduction: Progressive supranuclear palsy (PSP) is a progressive neurodegenerative illness which characterizes with paresis of vertical view associated with extrapyramidal symptoms and cognitive deterrence. The illness is commonly developed around or after the sixth decade of life and the diagnose is clinically determined. Goal: A 55 aged patient, without risk factors and familiar predisposition, with gradually progressive course of the illness for a few years. A beginning with changes on a psychological plan – irritability, absent mindedness, daily activity reduced, expressed feeling of anxiousness. By further examinations, changes in the neurological plan are incorporated and presented as extrapyramidal symptomatology (tremor, falling down, insomnia, changed speech, difficulties in speech). On a cognitive plan neuropsychologically determined, a cognitive fall with diffused changes is presented, accented with a frontal sub cortical localization dominant reduced phonemical and categorical fluidity, and spontaneous verbal memory. Conclusion: PSP is a progressive neurological illness which in the beginning can induce other illnesses and a therapeutically different approach. Therefore, a timely detection of this illness means an adequate symptomatic treatment and timely genetical consultation.

P-6**PREVENTION BY DETECTING RISK FACTORS FOR POSTPARTUM DEPRESSION****Jelena Stojanov**, Miodrag Stanković, Miljana Petković, Dušan Simić*Medical faculty, University of Nis, Department for psychiatry*

Postpartum depression is the most studied postpartum psychiatric disorder that affects approximately 10–15% women worldwide, and a well confirmed cause of individual distress and suffering, associated with increased risks of marital conflict, impaired parenting and increased risk of cognitive, emotional, behavioural and other health problems in the offspring. The most acceptable approach to prevention includes the detection of risk factors during pregnancy. Risk factors with moderate to strong interconnection with postpartum depression include history of depression and previous psychiatric illness, depression and anxiety during pregnancy, changes in sleeping and eating, tobacco use, neuroticism and low self-esteem in mothers, stressful life events (violence or abuse), poor marital relationship, social support and quality of life. Risk factors that have more modest associations with PPD include low socioeconomic status and unemployment, inadequate maternal supply, younger age, being single, and unplanned or unwanted pregnancy. Although all women are susceptible to developing postpartum depression, potentially vulnerable groups can be ascertained during routine pregnancy care. For its potential implications for the mother, infant, and family, and that happens at such an important time in the infant's life, more convenient approach is needed for determining risk factors. Therefore, it is important that antenatal healthcare providers (including obstetricians, prenatal nurses, and family doctors), and women themselves are educated about these risk factors.

P-7**THE PATIENT WITH DEMENTIA IS NOT THE ONLY VICTIM OF THE DISEASE****Snezana Pejkovska-Dimovska**, Vilma Videnova, Sonja Delova, Sanja Eftimovska*Psychiatric Hospital Skopje*

Dementia leads to a progressive and irreversible cognitive and functional decline, and people with dementia become completely dependent on their caregivers. Dementia affects not only the diseased person but the whole family. The people who are nursing dementia sufferers are very engaged and under great physical and psychological burdens. Most often they are spouses and children. They face a change in the personality of a diseased person and this can be very painful. The constant stress they suffer can lead to serious consequences for their physical and mental health, especially if they are not prepared. There is sadness as a reaction to a loss of relationship with a parent or spouse. The caregivers load is getting bigger because dementia needs constant monitoring and care, and it lasts for many years. The social life of the caregiver becomes poorer due to lack of time and great obligations towards the demented family member, which enhances the feeling of isolation and loneliness. The demented person has an inconvenience, anger, a desire to fit into a home for the elderly, and all of these feelings can cause a sense of guilt at a caregiver. Conflicts in an extended family are often, and the financial aspect of the care of the sick is not negligible, which additionally burdens the family. The lack of the necessary knowledge of the disease and therapy is an important cause of burden and stress in the caregiver. Immediately after diagnosis, caregiver needs to get as much information about the course of the disease, complications, and expectations of the therapy. The counseling, psychoeducation, education on strategies for communicating with demented person, support groups, are the necessary tools that makes it easier to care, reduce stress, and teach caregivers to protect themselves and get better quality of life.

P-8

EFFECT OF HOSPITAL ANXIETY ON THE QUALITY OF SLEEP IS MODERATED BY THE SEVERITY OF DEMENTIA SYMPTOMS

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Introduction: The prevalence of sleep disorder and anxiety in dementia is high, ranging up to 70% of patients. Both are commonly treated with benzodiazepines, and particularly the sleep-onset-latency which correlates with the state anxiety. However, their prolonged use may have serious adverse effects on cognition. Benzodiazepines are among the most often inappropriately used drugs in patients with dementia, and their unfavorable effects may increase with the age of patient and the severity of dementia. For these reasons it is important to understand the pathological effects of hospital anxiety on the quality of sleep in dementia of different severity. **Objective:** To explore whether the severity of dementia moderates the association of hospital anxiety and the quality of sleep. **Methods:** This cross-sectional study was performed at the Department of Psychiatry, Sestre milosrdnice University Hospital Center, Zagreb, Croatia, on the consecutive sample of patients hospitalized for Alzheimer's dementia between 2015 and 2018. The outcome was sleep quality measured by Pittsburgh Sleep Quality Index (PSQI). Independent variable was hospital anxiety measured by the anxiety component of the Hospital Anxiety and Depression Scale (HADS). The hypothesized moderator was severity of dementia measured by Clinical Dementia Rating scale (CDR). **Results:** The correlation between hospital anxiety and sleep quality was significantly moderated by the severity of dementia, after the adjustment for age, gender and treatment with benzodiazepines. Increase of R² due to this moderating effect was 0.05 (p=0.044). The correlation of anxiety and sleep quality was significant in patients with CDR score lower than 1.47 (75% of patients), and neither significant nor clinically relevant in patients with CDR>1.47 (25% of patients). **Conclusion:** Effect of hospital anxiety on quality of sleep is moderated by the severity of dementia. In patients with severe dementia, the hospital anxiety was not significant predictor of sleep quality.

P-9

ЗЛОУПОТРЕБА НА СТАРИ ЛИЦА СО ДЕМЕНТЕН СИНДРОМ

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Осврт-пореметувањето на памтењето е еден од највпечатливите симптоми кај деменцијата. Постои слабост на запамтување и неспособност за сеќавање на свежите случувања. Сеќавањата од минатото се обично добро сочувани во памтењето. Со текот на болестаследи пропаѓање од новите кон старите случувања. Опаѓа способноста на логичното размислување и расудување, како и способноста на ГЕНЕРАЛИЗАЦИЈА, ДИФЕРЕНЦИЈАЦИЈА, СИНТЕЗА И АНАЛИЗА. Се губат абстрактните поими. Во една ваква состојба, дементните луѓе можат да станат жртва злоупотреба од семејството, Близок роднина, Секој кој е малку поблизок со старото лице, Лице кое му помага или за пари го чува лицето. Цели- да се воочи на проблемот за злоупотреба на старите и демнтни лица, со цел за нивно посигурно живеење и егзистирање во својата домашна средина пред да бидат сместени во старски дом или СБ за геријатриска и палијативна медицина Методи- Анамнеза- најчесто самите пациенти кажуваат за се што им се случува пред да бидат сместени во старски дом или СБ за геријатриска и

палијативна медицина. Хетероанамнестички податоци од роднини, комшии кои кажуваат за случувањата во домот на старото лице кои како незаинтересирани набљудувачи забележале. Разговор со социјалните служби(на барање и истражување на социјаните работницидобиени се сознанија за било каква злоупотребакај старото лицеод страна на друго лице. Во немоќта да се справат со секојдневните проблеми-пазареење, чистеење, готвење, одржување на лична хигиена недостаток на друштво за комуникација тие довербата ја даваат на лицето кое го чувствуваат за најблиско во моментот.

Резултати-од долгогодишното истражување и разговор о старите лица се дојде до сознанија на кој се начин се злоупотребуваат старите лица со деменција. Финансиски- со одземање на пензијата (дали преку одземање на деловна способност кај дементните лица или присилно со одземање на парите, служење со лаги дека многу им се потребни за плаќање на сметки и обврски кои ги имаат кон старото лице). Со вселување во домот на старото лице често под изговор дека ќе се грижат за него. Грижата околу старото лице трае кратко а потоа од како ќе увидат дека грижата за старото лице не е едноставна работа гледаат да ги сместат во старски домови. Со одземање на имотот со договор за доживотна издршка кој понатаму не го почитуваат. Со одземање на имотот под присила и закана дека нема повеќе да го чуваат, дека ќе го напуштат. На тој начин го присилуваат да им го препише имотот. Со сместување во старски дом и продавање на имотот. Сексуална злоупотреба посебно кај жените (дел од женскиот род е сексуално злоупотребуван дали за парична надокнада или за било која цел) Референци-во долги разговори со семејствата на пациентите кои беа сместени во СБ за геријатриска и палијативна медицина од било која причина, а и во разговори со злоупотребените се дојде до сознание дека старвот од самотија е основната причина. Стравот дека ќе бидат напуштени од семејството, од најблиските прави да не кажуваат на што се изложени. При сместувањето во нашата болница и нашиот старски дом со подолготраен престој и третман, разговор и поддршка почнуваат да бидат послободни,посигурни ја враќаат довербата во себе и тимот и почнуваат да кажуиваат дел од своите предходни доживувања киога биле сами и незбринети адекватно. Често и судот беше посредник на разрешувањето на имотната злоупотреба.

P-10

THE CONCEPT OF MISTREATMENT AND SELF NEGLECT IN THE ELDERLY

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Introduction: Mistreatment and self-neglect are complex problems in the elderly population. Self-neglect in older adults is an increasingly prevalent, poorly understood problem, crossing both the medical and social areas, with public health implications. It is a complex syndrome that in many cases involving psychiatric disorders that may or may not have been identified when the older adult was younger. Characteristics of self-neglecting older adults include depression, dementia, substance abuse, low socioeconomic status, and social isolation. Case report: Here we present a case report abusing a spouse, husband, and wife over 80 years of age. They have been abused for years by a 45-year-old, wife's first-born son, an alcoholic. The husband was admitted into the hospital and gave information about his stepson's violent behavior. He stole his stepfather's and mother's rent money and destroy his stepfather's debit card and physically harm him in the past. He also mistreated his mother. After a few days, she was also admitted to the department after she also attempted to jump through the window. The hospital psychiatric service engaged social care center and police office. Conclusion: Little is known of outcomes of older mistreatments. It is a significantly increased mortality risk for victims of elderly mistreatment. It is important to

recognize psychiatric symptoms associated with mistreatment and characteristics of perpetrators. The social community should pay more attention to older people and their needs. We need to improve the ability to handle this vulnerable population.

P-11

ADVERSE EFFECTS OF ATYPICAL ANTIPSYCHOTICS

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Antipsychotics are agents used to manage psychomotor agitation and aggression in psychotic patients, and which have mood stabilizing effect and cause affective calmness. The term “atypical antipsychotics” is used for the second and third-generation antipsychotics, which were created with intention of eliminating neuroleptic syndrome and improving the efficacy of treating negative symptoms. From a pharmacological point of view, they are serotonin-dopamine antagonists and have an antagonistic effect on serotonin (5HT_{2A}) and dopamine (D₂) receptors at the same time. This group of drugs includes: clozapine, olanzapine, risperidone, ziprasidone, quetiapine, sulpiride, amisulpride, paliperidone, sertindole, zotepine, aripiprazole and cariprazine. Atypical antipsychotics have numerous adverse effects due to their heterogeneous pharmacological properties and receptor binding profile. These include: metabolic (metabolic syndrome, dyslipidemia, obesity, diabetes mellitus, hyperprolactinaemia and sexual dysfunction), neurological (extrapyramidal syndrome, convulsions, sedation and sleep disorders and anticholinergic effects), cardiological (prolongation of QTc interval, arrhythmia and sudden cardiac death), haematopoietic (agranulocytosis, neutropenia and other blood dyscrasias), gastrointestinal (sialorrhea and effects on the liver) effects, as well as urinary incontinence and adverse effects on the eye and skin and hypersensitivity reactions. Knowing the side effects of antipsychotics, especially atypical, is a prerequisite for routine monitoring of adverse effects in daily clinical practice, in order to reduce the harmful effect on the health of psychiatric patients.

P-12

NEUROPSYCHOLOGICAL ASSESSMENT A CASE OF POSTERIOR CORTICAL ATROPHY

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Introduction: Posterior Cortical Atrophy (PCA) is a form of dementia which is usually considered as a rare and atypical variant of Alzheimer’s disease (AD). This neurodegenerative condition is characterized by progressive and selective decline in visual-processing skills and other functions that depend on parietal, occipital, and occipitotemporal regions of the brain. Objectives: We describe a case of PCA with some typical characteristics, such as visual symptoms at the onset and progressive worsening dementia symptoms. Diagnosis remains problematic, and actually it is based on detection of the specific clinical features supported by neuropsychological assessment and neuroimaging, which show characteristic posterior brain abnormalities. Methods: Neuropsychological testing for visuospatial abilities, abstract reasoning, memory, language, executive functions, praxes, and attention. Results: This 51 year-old, right-handed woman was referred to our clinic September, 2018 because of progressive decline in cognitive functioning. The first neuropsychological examination

she had Addenbrooke's Cognitive Examination-Revised Test score 52/100, showed global cognitive decline with dominant visuospatial and visuo-perceptual deficits. At the next examination, the symptoms were rapidly worsened ACE-R Test score 37/100, with errors in the subtests that evaluate spatial cognition, perception of objects, constructional praxis, memory, reasoning, calculation, reading and writing; Considering the onset with visuospatial and visuo-perceptual deficits, progressive decline of other cognitive function, along with other results of neurological examination, a diagnosis of PCA was supposed. Conclusion: Our goal is to increase awareness and improve identification of early and unusual symptoms of PCA and to provide education for patients, carers, and health-care professionals.

P-13

CAREGIVER SUPPORT: CHALLENGES OF COMMUNICATION WITH PERSON WITH DEMENTIA

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Communicating with person with dementia can be very challenging, both for their loved ones and caregivers. Neurodegenerative processes that occurs in dementia are progressive in their nature and can lead to varying degree of communication barriers between patients and caregivers or medical staff. Ineffective communication also adds to caregivers and patients distress. That is why learning how to adequately communicate with person with dementia is one of the major dementia support strategies. The most frequent communication issues that we face while caring or treating someone who has dementia are receptive dysphasia, anomia, poverty of speech, tangential thinking, losing track of thoughts, disorganized speech, vague meanings, use of neologisms, perseveration, etc. This presentation will address description of an intervention of specific communication techniques, across disease stages, as well as our experience in education of nursing home staff on these specific interventions, since every member of carers team from non-medical staff to physicians can benefit from specific training in this area. Educating carers and/or medical staff on how to speak, what to say, in what manner, how to listen to what is being said, how to ask a question, attitude, body language and physical contact, how to respond to what is being said are all powerful set of non-pharmacological interventions. We should always keep in mind that raising caregivers' abilities in handling demanding dementia symptoms reduces their stress, feelings of guilt and inadequacy, keeps their health at optimal level, which is indirectly of paramount importance for the wellbeing of patients with dementia.

P-14

KNOWLEDGE AND ATTITUDES TOWARDS PATIENTS WITH DEMENTIA AMONG HIGH UNIVERSITY STUDENTS

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Background: Aging of the population is a worldwide phenomenon. Adult population continues to grow at unprecedented rates, so age-related changes lead to health problems and chronic disease. The prevalence of dementia increases with age and improved health care over the years has allowed people to achieve longer and longer life spans. Cognitive impairment in dementia typically presents as a combination of a memory loss, communication and language impairments, impaired executive

function, changes in personality, eyesight and mobility. Dementia not only affects person who have this condition, but also family, friends and caregivers. Objective: To evaluate students' knowledge and attitudes towards individuals with Alzheimer's disease and dementia. Method: The research was conducted on a group of 120 university students who studied medical science and psychology at the University of Tetova aged between 22-25 years. The instruments used in the research were: Alzheimer's Disease Knowledge Scale (ADKS) and Dementia Attitudes Scale (DAS). Results: The results indicated that there were positive and significant relationships among knowledge of dementia and course of study ($F_{119,1}=53.164, p=.005$) and attitudes towards dementia and course of study ($F_{119,1}=43.24, p=.016$). At the same time there was a positive correlation between knowledge and gender ($r=0.45, p<.05$) and attitudes towards dementia and gender ($r=0.21, p<.05$) among university students. Conclusion: The findings of the present research revealed that the students had adequate knowledge and attitudes towards patients with dementia. These results confirm the importance of strengthening the dementia related content to undergraduate curriculum to inculcate constructive attitudes and to provide holistic care to persons with dementia. In context of this, caring for people with dementia posits huge major challenges in the upcoming decades.

P-15

APOLIPOPROTEIN E GENE POLYMORPHISM AND RISK OF DEMENTIA IN ISCHEMIC STROKE PATIENTS: A FOLLOW-UP STUDY

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Background: The apolipoprotein E (APOE) gene polymorphism and ischemic stroke increase the risk of cognitive decline. However, the association of APOE gene polymorphism and ischemic stroke in the development of new dementia after first-ever ischemic stroke (FIS) is not well understood. Aim: To examine whether the increase in cognitive decline or developing dementia after FIS is similar between participants with and without APOE E4 allele. Material and methods: Using a prospective sample of 141 (52.48% females, 47.52% males, mean age = 52.65 years) participants, we extended the length of follow-up of the participants that we had recruited previously in a two-year nationwide case-control based cohort study (2008-2010) covering all Albanian ethnicity and administered test of general orientation and global cognition using Mini-Mental State Examination (MMSE) month to 39 patients with FIS (mean age, 63 years [range 44 to 82 years]) and 102 healthy subjects (mean age, 49 years [range 27 to 71 years]), all of whom were no demented in baseline examinations. We diagnosed incident dementia using ICD-10 criteria. This study was approved by the Institutional Board of Clinical Hospital Tetovo, and all participants provided informed consent assessment procedures and follow-up. To maximize follow-up rates, we visited participants' homes if participants were unable or unwilling to be examined in our clinic. All participants completed the formal end of follow-up. Results: After acute FIS, 12.82% of FIS patients had cognitive disorders and new dementia was diagnosed in 5.13% patients during three months of follow-up. Among FIS patients, the risk of dementia was not elevated in association with APOE gene polymorphism. New dementia was not diagnosed in control subjects. Conclusion: Compared with the general population, older patient age, higher MMSE scores on admission, at hospital discharge and in patients' homes predict poor cognitive status and developed dementia in the North Macedonia Albanians.

P-16**ALCOHOL-RELATED DEMENTIA: NEUROPSYCHOLOGICAL PROFILE**

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Background: Present diagnostic criteria for alcohol-associated cognitive disorders focus on two main syndromes of impairment: Wernicke-Korsakoff syndrome (WKS) and alcohol-related dementia (ARD). Whether the direct result of ethanol neurotoxicity results with a primary alcoholic dementia - or the clinical presentation of dementia represents another underlying thiamine deficiency, or multiple factors neurotoxicity in combination with nutritional deficiencies, it is well established that excessive and prolonged alcohol use can lead to cognitive impairment. Methods: In the period from 2017-2018 in specialized department for treating alcohol abuse and dependence in The Psychiatric Hospital-“Skopje” 36 patients had certain reductive changes in cognitive functioning. We analysed their neuropsychological and personal files of medical treatment in the hospital. Results: Alcohol-related dementia (ARD) cases generally have a younger age of onset, under 60 years of age (58,8). ARD group performed better on semantic tasks (confrontational naming, category fluency, and general knowledge), but had poorer visuospatial organization results, especially in higher-order organization perceptual tasks. Verbal deficits for anterograde amnesia and impaired recall of past events in which recall is better for more remote time periods. 25% of patients demonstrate confabulations and different intrusions to fulfill the emptiness in memory. Conclusion: Chronic alcohol abuse results with deterioration of cognitive functioning and long term intoxication impairs most cognitive skills.

P-17**CHOLINESTERASE INHIBITORS IN TREATMENT OF ALZHEIMER'S DISEASE**

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Introduction: Alzheimer's disease remains a challenge in management. With nearly 8 million sufferers from this condition in the seven major markets of the world and anticipated increases in the future. The current management of Alzheimer's disease is reviewed and it involves a multidisciplinary approach. Acetylcholinesterase inhibitors are mostly a symptomatic treatment. Management of these patients also require neuroleptics for aggressive behavior and antidepressants. Aim: Medications used to treat the cognitive symptoms of AD include the cholinesterase inhibitors donepezil, rivastigmine, and galantamine, and the N-methyl-D-aspartate receptor antagonist memantine. Donepezil is FDA-approved to treat all stages of AD, rivastigmine and galantamine are approved to treat mild to moderate stages, and memantine is approved to treat moderate to severe stages. Current treatment guidelines recommend that cholinesterase inhibitors be offered to patients with mild to moderate AD.

Material and method: A 75-year-old man who was diagnosed with mild Alzheimer's disease (AD) 1 week ago with a Mini Mental Status Exam (MMSE) score of 19 with prescription for donepezil. The treatment of AD is based on a patient's stage of cognitive decline. Various mental status examinations, such as the MMSE, are used in practice to diagnose and monitor a patient's disease course. The MMSE is an 11-item test with a maximum score of 30 that quantifies a patient's orientation, registration, attention, calculation, recall, and language. Mild cognitive decline is classified by an MMSE score of >18, moderate cognitive decline as a score of 10 to 18, and severe cognitive decline as a score of <10. Conclusion: The psychiatrist should prescribe donepezil is an

appropriate medication considering MMSE score, the drug's approved indication, and AD treatment guidelines. This report illustrates that donepezil, and perhaps by analogy other cholinesterase inhibitors as well, can be efficacious in treating the cognitive, functional, and behavioral impairment associated with advanced AD.

P-18

DEPRESSION AS A COMORBIDITY IN DEMENTIA AND ITS TREATMENT

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Introduction. Patients with dementia, with moderate to severe cognitive disorders, often have depression, such as comorbidity, which additionally worsens their general functioning and everyday activities. An examination of a controlled group of patients already treated with memantine (Ymana, Alkaloid) was carried out in order to see the possible effect of depressive symptomatology reduction with the introduction of escitalopram (Zepira, Alkaloid) as an adjuvant therapy. Methods. The trial included 27 patients (15 women, 12 men) at the average age of 74 (61-90 years), all of whom previously received memantine at doses of 20 mg. From the total number of subjects in 18 of them, escitalopram was administered as adjuvant therapy at doses of 5 mg-15 mg (average dose, slightly over 8 mg). All patients were controlled using the Hamilton Depression Rating Scale HAM-D) at the start of the examination, the third month and at the end of the sixth month. Results. At the start of the trial, both of the HAM-D patients were almost identical to the HAMD assay and amounted to about 30. After the third month, during the second control, the sum of HAM-D in those taking escitalopram was an average of 22 relative to the other from 28, and at the end of the sixth month, at the third control, the sum was an average of 19 in relation to median vein of 26 in favor of those who were on supplemental therapy with escitalopram. Conclusion. From six months of controlled monitoring of patients with dementia and comorbidity depression, it can be concluded that depressive symptomatology significantly decreased in those patients who received adjuvant therapy with escitalopram in relation to those who did not receive the same therapy but also had improved general functioning and everyday activities.

P-19

BENZODIAZEPINES USE AND RISK OF DEMENTIA IN THE ELDERLY POPULATION

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The use of benzodiazepines and development of dementia is controversial, with studies indicating that benzodiazepines could be either a protective factor or a risk factor for dementia, or no association may exist between the two. Benzodiazepines are a widely used medication in developed countries, particularly among elderly patients. However, benzodiazepines are known to affect memory and cognition and might thus enhance the risk of dementia. The AIM of this study is to determinate the dementia among elderly patients who use benzodiazepines. **MATERIJALS AND METHODS:** The present study included two groups of psychiatric patients with Dg: F41; F43; F32, who had age of 64, 2±3,2years evaluation in Private Practice in Psychiatry D-r Zora Mitkij. The cross section present study included two examination groups. The first group considerers 25 patients (20 family and 5 men) who use antidepressant therapy and benzodiazepine and second group with 25 patients (15 family and 10 men) who use only antidepressant therapy. Dementia symptoms were measured by Mini Mental State Examination (MMSE) - a brief structured test of cognitive function. The MMSE is a 30-point test. The score of MMSE –scale was graduated mental condition

in five levels. (normal level 30-28; minimal cognitive deficit 25-27; mild damage 24-21; moderate damage 20-16; heavily damage <15). The results were analyzed statistically using descriptive methods, t-test for independent simplex. The statistical test was considered significant at the level $p \leq 0,05$. RESULTS: in our study we got higher percent 68% of cognitive deficit in groups of patients who use benzodiazepine then patients without benzodiazepine use. Between two examination groups we got statistically significant differences $p=0,002$. CONCLUSION: our results suggest that benzodiazepine use in the elderly population is significantly associated with dementia risk.

P-20

COGNITIVE BEHAVIORAL THERAPY FOR PATIENTS WITH ALZHEIMER'S DISEASE

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Alzheimer's disease (AD) is a chronic debilitating mental condition manifested by cognitive and memory deterioration, progressive impairment in performing daily activities and a wide range of neuropsychiatric symptoms and behavioural disturbances. Every patient with dementia is unique, and while cbt is likely to work with some patients with dementia, it will not work for all of them. Cognitive behavioral therapy is language based therapy and for some people with demetia can be challenging. Interventions like reality orientation and skills training can be effective for reveresing cognitive impairment among elderly. Cognitive therapy uses specific exercises targeting cognitive functions in order to improve daily functioning. Depression and anxiety are more common in people living with dementia than in people who do not have dementia which can worsen dementia symptoms. Cognitive restructuring is one of the crucial techniques in cognitive behavioral therapy. In Beck's cognitive model for depression, cognitive schemas are described as negative view of oneself, the world and the future as core components of depression. In AD, where individual's ability for introspection and reflection are progressively impaired, it has been suggested that cognitive restructuring is most likely to benefit patients with mild dementia. Also, it may be necessary to make some modifications like simplifying the material, improving encoding by having the patient repeat information, using reminder cards with helpful thoughts and involving caregivers to facilitate learning at home.

P-21

THE ROLE OF MELATONIN IN SCHIZOPHRENIA

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Schizophrenia is a chronic and complex mental illness that disturbs several cognitive functions and affects 1% of the worldwide population. Symptoms of sleep disorders, such as disturbances in sleep initiation and continuity are common and have been shown to increase the risk of cognitive dysfunction and relapse in patients with schizophrenia. Cognitive impairment and decreased melatonin are reported in schizophrenia; however, the relationship between them remains unclear. Melatonin, the main hormone of the pineal gland, is assumed to support initiation and maintenance of sleep, and a stable sleep-wake cycle, exerting antioxidative and neuroprotective actions. The results from studies relating melatonin to schizophrenia appear to be rather inconclusive, considering that the presence/absence of correlations between melatonin concentrations and total scores on Positive and Negative Syndrome Scale and Brief Psychiatric Rating Scale are difficult to interpret, because they do not measure schizophrenic syndromes, but global symptom severity. Melatonin roles are numerous and include, among others, control on the circadian rhythm acting as neuromodulator, hormone, cytokine and biological response mediator. There were two areas

of research clearly delimited in psychiatry with respect to melatonin, as a biological marker of psychiatric pathologies and as a possible psychiatric therapeutic agent. Melatonin use as a therapeutic agent has mainly been focused on sleep disorders, leading to a modest improvement of objective and subjective sleep quality, of metabolic adverse effects of antipsychotics, and of tardive dyskinesia symptoms in schizophrenia patients. Future studies are required to investigate the role of melatonergic pathways in patients with schizophrenia.

P-22

NEUROPSYCHOLOGICAL ASSESSMENT OF DEMENTIA AND DEPRESSION IN OLDER ADULTS

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Two of the most common psychological disorders of later life are dementia and depression. The diagnosis of these conditions presents a challenge to clinicians because the symptoms of depression and dementia often overlap; in addition, the symptoms of either of these disorders in their early stages may be attributed to the normal effects of aging. In the psychological assessment of older adults, clinicians and practitioners have a need for a clear and practical guidance on differentiating psychological disorders from normal events in the aging process, identifying symptoms of depression and symptoms of dementia, performing differential assessment of dementia and depression, determining legal competency of older adults, providing clinical interpretations to clients and their families, and applying assessment to therapy and interventions.

P-23

REVERZIBILNOST NA KOGNITIVNITE NARUSUVANJA PRI DOLGOTRAJNA APSTINENCIJA

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Da se prikaze moznosta od reverzibilen proces na kognitivnite narusovanja pri dolgotrajna alkoholna apstinencija. Materijal i metodi: Studijata e prospektivna i retrospektivna kohortna, vo traenje od tri godini i vklucuva 68 pacienti od maski pol, na vozrast od 50-65 godini, so Dg.F 10.2. Za postignuvanje na zadadenite celi vo istrazuvanje se koristenii podatoci od istorija na bolesta, laboratoriski i biohemiski analizi, KTM, MNR, EEG, MMSE-skala za procenka na kognitivnite funkcii. Vo istrazuvanje se iskluceni drugi identificirani pricini i vidovi na demencija. Rezultati: od vkupno 68 pacienti, koi se dolgogodisni zavisnici od alkohol, kognitivno osetuvanje e registrirano kaj 35 pacienti. Kaj 24 pacienti se pokazale polesni kognitivni osetuvanja, kaj pet pacienti sto vospostavile podolgotrajna apstinencija imalo reverzibilen proces na kognitivnite osetuvanja. Kaj sest pacienti se registrira potesko kognitivno osetuvanje(funkcionalno i strukturno). Kaj ovie sest pacienti se sledat i promeni vo karakterot na licnosta. Zaklucok: redovnoto i dolgotrajno konzumiranje na alkohol, doveduva do strukturni i funkcionalni osetuvanja na mozokot. Toa doveduva do globalna zaguba na intelektualnite sposobnosti so zaseganje na memorijata, apstraktnoto razmislivanje. Kaj alkoholnata demencija mozna e prevencija i ima potencijal taa sostojba da bide reverzibilna. Potrebna e strategija vo interveniranje, dodeka pacientite se hospitalizirani. Dolgotrajnata alkoholna apstinencija e najvaznata stapka vo procesot.

P-24**REVERSIBLE DEMENTIA CAUSED BY HYPOTHYROIDISM – A CASE REPORT****Diogo Almeida¹, Guadalupe Marinho², Teresa Maia¹**¹Hospital Prof. Doutor Fernando Fonseca²*Centro Hospitalar Universitário do Algarve - Portimão*

Introduction: Reversible causes are thought to explain about 8% percent of all dementias. Hypothyroidism is one of the most important causes of potentially reversible dementia. Deficits in memory, psychomotor slowing, general intelligence, and visuo-perceptual skills are particularly involved and may not fully recover. Aim: To review a clinical case of a reversible dementia caused by hypothyroidism, in a patient followed in our institution. Methods: Case report using clinical data collected in our institution, and brief literature review. Results: We present a case of a 76-year-old female patient admitted in our acute unit with visual and auditive hallucinations, and persecutory delusional ideation for 1 month. There was no previous psychiatric history. The patient was fully oriented in space, time and person, but there were clear memory deficits. We used the Montreal Cognitive Assessment (MoCA) and the Frontal Assessment Battery (FAB), having the patient scored 17 on the former and 3 on the latter, failing in all tests except for grasping. On the blood tests, fT3 and fT4 were near 0 and TSH was 40. By interviewing the family, we discovered that the patient had removed her thyroid gland 25 years ago and had been doing replacement treatment since then but had missed her appointments with the endocrinologist and stopped treatment on the previous six months. We also did magnetic resonance imaging that showed frontal microcirculatory changes but without clear atrophy. The patient was treated with aripiprazole 30mg and levothyroxine 0,150mg, being discharged after 1 month, without psychotic symptoms. About 1 year after, we repeated MoCa and FAB, scoring 27 and 16, respectively. The psychotic symptoms didn't recur even after the antipsychotic discontinuation. Conclusion: We present a case of hypothyroidism induced dementia with psychotic symptoms, miming a fronto-temporal dementia, that fully recovered with thyroid replacement treatment, without previous neurological or psychiatric history.

P-25**BEREAVEMENT IN OLDER PEOPLE WITH DEMENTIA – CHARACTERIZATION AND POSSIBLE ORIENTATIONS****Guadalupe Marinho¹, Diogo Almeida², Maria Do Carmo Cruz¹**¹*Centro Hospitalar Universitário do Algarve - Portimão*²*Hospital Fernando Fonseca*

Background: To date, bereavement has mostly been studied in populations with normal intellectual ability, having been explored to a much less extent among people with dementia. As the average life span among individuals with dementia increases, these people experience more frequent bereavement events. However, caregivers are puzzled by how to treat the bereaved people with dementia, as neither guidelines nor educational and training programmes exist. Objectives: To explore the bereavement of older people with dementia. Materials and methods: A literature review was conducted by searching in PubMed database the terms: "dementia AND (bereavement OR grief OR mourning)". Articles were subsequently selected with regard to their scientific relevance. Results: Older people with dementia that had lost their loved ones respond to the loss with sadness, sometimes despair, and mental and physical inactivity. Nonreactions of mourning are, however, much more common than traditionally found among persons with normal intellectual ability. The literature points to different behaviours according to the Functional Assessment Staging of Alzheimer's Disease (FAST): people with dementia in FAST 2 could encode and store relative's death

soon after the bereavement; in FAST 7, people with dementia may not discern the relative's death throughout the usual mourning time period. Some suggestions on how to deal with older people with dementia: assess the person's current framework of knowledge, then give the new chunks of information one by one, then finally check and reassess the person's knowledge. Conclusions: Little is known about the bereavement of older people with dementia and this has resulted in there being no guidelines concerning grief care for them. To improve this situation and to make new frontiers in the care of bereaved people with dementia, identifying the mourning process in people with dementia and developing educational programmes and care methods for professional caregivers are needed.

P-26

CAN DEMENTIA BE AFFECTED BY THE PERSONALITY?

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Background: Dementia is a leading cause of disability and death among older adults. A broad range of clinical and psychosocial factors, including personality, may modulate dementia risk. Personality may impact on dementia risk by influencing health habits, cognitive activity and reactions to stress over the lifespan. Objectives: To explore the influence of personality in the development of dementia. Materials and methods: A literature review was conducted by searching in PubMed database the terms: "dementia AND personality". Articles were subsequently selected with regard to their scientific relevance. Results: Personality influences patterns of reactions in life that may influence dementia risk. High neuroticism is associated with greater experience of distress in relation to stressful life events. Midlife experience of psychological stress and greater reactivity to stress increase dementia risk. Neuroticism is also strongly related to depression, which is also a risk factor for dementia. Some studies report that higher openness confer a decreased risk for dementia. Others report that dementia is associated with previously less conscientious individuals. The evidence that extraversion and agreeableness were not associated with dementia was uniform. These findings are consistent with research on volumetric neuroimaging. Higher neuroticism was associated with global atrophy, smaller volumes in cerebral grey matter and cerebral white matter decreased. Higher conscientiousness has been associated with larger orbitofrontal volumes in older persons and smaller decrease with age in cerebral white matter, amygdala, and parahippocampal volumes. Conclusions: There is consistent evidence that higher neuroticism has a substantial impact on increasing dementia risk, and higher conscientiousness is protective against dementia. Openness may also be protective against dementia. This findings can potentially shape diagnostic paradigms and help professionals in the targeting of prevention and treatment efforts. Moreover, personality should be added to conceptual models of dementia risk and evaluated in future longitudinal studies of risk factors for dementia.

P-27

PSYCHOSIS IN PRODROMAL PHASE OF DEMENTIA - A REVIEW

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introduction: Dementia is associated with great patient suffering, caregiver burden, and significant societal expense. With the limited success of existing medication for established dementia, there has

been a shift in the research focus from patients with active disease to subjects who are prodromal or have mild cognitive impairment. In the past few years, some neuropsychiatric changes have been acknowledged to precede the onset of dementia for many years. Aim: To review the presence of psychotic symptoms in the prodromal phase of dementia. Methods: Literature review of articles published since 2010. The works were selected for their scientific relevance. Results: Isolated psychotic symptoms may be common in the general population, without a specific pathological meaning. The emergence of psychotic symptoms in the elderly may be associated with incident dementia, but in other cases there are no clear neurocognitive deficits. In 2013, Kohler published a prospective study where it were analysed nearly 12000 adults over 65 years of age without dementia, for 10 years, and they discovered that 13,2% had psychotic symptoms from baseline and that these individuals had worse cognitive functioning and displayed a more rapid cognitive decline in follow-up. They had also a three-fold risk in developing dementia comparing to other subjects. However, late-onset and very-late onset schizophrenia may be confounded with incipient dementia with psychotic symptoms, having in account the cognitive deficits of the former disorder. It is also known that schizophrenia increases the risk of having dementia by two-fold, being this relation still poorly understood. Conclusion: Psychotic symptoms may be present in prodromal phase of dementia. They seem to be associated with a worse prognosis, with a more rapid cognitive decline and a stronger association with established dementia. These patients need to be monitored closely and intervention provided at the earliest possible opportunity.

P-28

SCHIZOPHRENIA AND RISK OF DEMENTIA – IS IT A NEURODEGENERATIVE DISORDER?

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Introduction: Schizophrenia is a disease affecting around 1% of the population with a more common but not exclusive juvenile onset. Patients often suffer from cognitive disturbances that present early in the course of schizophrenia, in addition to other characteristic symptoms such as delusions or hallucinations. Dementia is a common disease of late life, characterized by a progressive loss of cognitive and functional abilities, which leads to debility and death. Aim: To review the relation between cognitive disturbances in schizophrenia and the risk of developing dementia. Methods: Literature review of articles published since 2000. Publications were selected in regard to their scientific relevance. Results: Longitudinal studies over the years have confirmed the relationship between schizophrenia and an increased risk of developing dementia. They also found a significant cognitive decline over time in people with schizophrenia, but these data remain controversial, as some studies showed no correlation with progressive decline. A recent meta-analysis confirmed a positive relationship for schizophrenia and dementia risk with an overall relative risk of 2,29, with higher risk for women than men. In line with this, another recent study identified patterns of macrostructural abnormalities in magnetic resonance images of the brain that are seen in both schizophrenia and Alzheimer disease, revealing a possible connection between the two disorders. There are several possible explanations for this relationship: due to antipsychotics and adverse health risk factors in patients; schizophrenia may lead to progressive brain dysfunction; a common underlying etiology for schizophrenia and dementia. These latter explanations may suggest that schizophrenia is a slowly progressive neurodegenerative disorder. Conclusion: Patients with schizophrenia are at an increased risk of developing dementia. Further studies suggested that this may be due to a slowly progressive decline in cognitive function, similar to a neurodegenerative disorder. However, this is controversial, and more studies are needed.

P-29

FREQUENCY OF PATIENTS OVER 65 YEARS OF AGE, DIAGNOSTICATION AND THERAPY IN PZU “D-r Zora Mitic” FOR THE PERIOD OF 6 MONTHS

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The idea for this topic emerged from noticing that patients over the age of 65 need different approaches, understanding and therapy than the younger population. In these patients, greater care is required when dosing the therapy, in anticipation of adverse effects and interaction with other non-psychiatric therapy. It poses a challenge to a psychiatrist, requires wider knowledge of other areas of medicine, greater patience, and greater commitment. Often the psychiatrist is asked to give his opinion about the psychic state of the patient who has forensic significance, which increases his/her responsibility. From the total number of 1101 patients who appeared on the examination in PZU “D-r Zora Mitic” for a period of 6 months, patients aged over 65 were represented with 12.5%, which is 113 patients. 76 of them women and 37 men. Diseases from which they suffered (only the first psychiatric diagnosis was taken): F00-F09 Total 22, F30-F39 Total 29, F40-F48 Total 62. Therapy administered to patients - Antidepressants: a total of 79, out of which Paroxetine 34, Escitalopram 20, Sertraline 11, Venlafaxine 10, Mirtazapine 4. Benzodiazepines 83, out of which Diazepam 37, Prazepam 15, Alprazolam 12, Lorazepam 9, Bromazepam 6, Medazepam 3. Neuroleptics - total of 19 Risperidone 9 (in daily doses of 1-2 mg), Olanzapine 4 (in 5 mg doses), Quetiapine 4 (in doses of 25-100 mg), Promasin 2 (in doses of 50-100 mg), Sulpiride 1 (at a dose of 100 mg), Clozapine 1 (at a dose of 200 mg). Psychostabilizers 13, Lamotrigine 11 (in daily doses of 100-200mg), Valproate sodium 2 (in daily doses of 1000mg). Acetylcholine esterase antagonists: Donepezil 16 (in daily doses of 10 mg, initial dose 5 mg). Blocker of N-methyl D-aspartate: Memantine 10 (in daily doses of 20 mg achieved by gradually increasing the dose). Side-effects of mild character have occurred in 21 patients, which did not require discontinuation of therapy. Side effects of medium difficulty occurred in 7 patients, and they required discontinuation or alteration of therapy. Undesirable effects have not been reported. Side effects were most commonly anxiety, restlessness, insomnia, pruritis, rashes, disturbed appetite, dizziness, drowsiness, instability, dizziness, mucous membranes, digestive disorders. The goal of this paper is to accurately understand the specificity of approach, diagnostics and treatment of the elderly population in a psychiatric clinic. The study is of an illustrative character. A period of 6 months starting from August 2018, including February 2019, was processed. The frequency in terms of the total number of patients, the psychological disorders from which they were ill, the pharmacotherapy that was administered, and the occurrence of adverse events, was considered.

P-30

ETHICS OF USING MECHANICAL RESTRAINTS IN PSYCHIATRY

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Introduction: Mechanical restraint of patients involves the use of leather or linen tools, various types of bed installations and other devices in order to limit the movement of the patient. For therapeutic purposes, this is used mainly with aggressive and agitated patients, so they are prevented from hurting themselves or others. Ethics of using mechanical restraints has been frequently questioned, since their use can cause various physical complications in restrained patients. Aim: Aim of this research was to review the ethical challenges regarding using mechanical restraints. Methods:

PubMed search for English language articles containing combination of key words: ethics, psychiatry and mechanical restraints. Results: It is questionable whether the benefits of mechanical restraint outweigh its risks. This way of treating patients can have side effects in the forms of compromising blood circulation, muscle weakness, muscle contractures, nerve compression, incontinence, skin injury and, extremely rarely, bone fractures. This measure also has psychological consequences for the patient in the form of depression, increased agitation of the patient and a whole range of other symptoms that occur as a result of feelings of humiliation and loss of dignity. Most of the recommendations agree that due to the risks and possible side effects, the use of mechanical restraints should be carefully considered and should only be used as a last resort, when de-escalating techniques are not helpful. They should be used for the shortest period of time, as prolonged mechanical restraint increases the risk of developing physical complications. Conclusion: Use of mechanical restraints still poses an ethical dilemma common in every day psychiatric practice. When deciding whether or not to use mechanical restraints, both benefits and risks from the ethical standpoint should be taken into account and carefully considered in order to make the best possible decision for the well-being of the patient.

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PSYCHIATRIC POWERLESS OR DIAGNOSTIC DILEMMA?

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In everyday practice as professionals, we face with diagnostic and therapeutic challenges in order to help our patients in everyday living. These challenges include cost-benefit analysis to achieve greater functionality and less side effects of drugs. Case report presentation. Patient S.G., 67 year, male. Ninth hospitalization admitted in Psychiatric Hospital –Skopje. Main symptoms for this admission are: psychomotor tension, anxiety, impulsiveness, conflictive, verbal aggression, lower level of tolerance for frustration, anger towards a member of a family, insomnia, dysfunctionality, reduced concentration, fail to remember... In relation to the beginning and course of the disease, it is a case about longtime psychiatric patient with occasional psychotic exacerbation in the frames of psychosis of a schizophrenic circle. Previous disease: St. post ACBP, Hiperlipidemia, HTA. Mental Status exam - The new thing was presented in symptomatology whilst his admission, besides the one who pointed to psychotic decompensation, and that was fail of remember, lowered concentration, insecure orientation in time, with preserved orientation in space and persons. Dysphoric mood, emotional instability, verbose in his statements and paranoid interpretations strictly pointed towards his sister, disharmonic dynamisms of the will. Six days after the admission he became confused, disoriented, with occasional thinking blockages, psychomotoric delays, discrete tremor of the upper extremities, pattering walk, and therefore the antipsychotic therapy was terminated and he received only internists therapy for a few days. The psychological testing indicated to changes towards Psychoorganic syndrome. Conclusion- How are we successfully coping as professionals with resolving the psychotic symptomatology, without causing side effects from the high doses of antipsychotics and polypragmasia. I assume that this was the case with this patient because "Psychoorganicum like Syndrome " symptoms quickly withdraw after that. Of course, there is still possibility for neurological diagnostic dilemmas.

P-32

PSYCHOTIC SYMPTOMS IN PARKINSON'S DEMENTIA: A CASE REPORT

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Background: Psychotic symptoms are present in up to 50% of patients with Parkinson's disease (PD). Risk factors for PD psychosis are advancing age, longer disease duration, severe motor symptoms, presence of dementia, sleep disorders, depression and autonomic dysfunction. Case presentation: A 71-year-old patient received a diagnosis of PD 15 years ago. The patient has a history of cognitive disturbances, insomnia and weight loss. Two months prior, the dose of carbidopa/levodopa was increased because of worsening motor symptoms. Within a month, the patient started having delusions and visual hallucinations and 2 weeks before the clinic visit, her mental state gradually worsened. A physical examination reveals normal vital signs, disorientation to time and place, motor symptoms of PD (resting tremor, cog-wheel rigidity, bradykinesia). Because of the severity of the PD motor symptoms, the dosage of carbidopa/levodopa was not reduced. Treatment with quetiapine 12.5 mg once daily with an increase to twice daily was initiated. Because of the lack of response, the dose was increased to 25 mg twice daily, which lead to psychotic remission without significant worsening of motor symptoms. Discussion and conclusions: Psychosis is one of the most prevalent non-motor complications in PD. Psychotic symptoms in PD are also proven predictors of mortality. Thus it is necessary to treat them but the choice of an antipsychotic should be based on careful risk/benefit assessment. A review of current medications is recommended, and medications that may trigger psychotic symptoms should be eliminated. If possible, antiparkinson medications should be reduced to the minimum therapeutic dose. The use of atypical antipsychotics, such as clozapine, pimavanserin, or quetiapine can be considered. The choice of atypical antipsychotic is based on patient-specific parameters, potential benefit, and side effects. This case report indicate that quetiapine can be efficient medication for treatment of psychotic symptoms in Parkinson's dementia.

P-33

CLINICAL USEFULNESS OF ELECTROENCEPHALOGRAPHY WITH POLYGRAPH CHANNELS IN DEMENTIA PATIENTS

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**PHO Psychiatric hospital*

Dementia patients often have behavioral disturbances. Clinical electroencephalography (EEG) remains highly underutilized in psychiatry practice although as a diagnostic tool could be part of a multidisciplinary approach used to distinguish dementia from delirium or other psychotic disorder. EEG can detect underlying co-morbidities that can contribute to clinical presentation especially when used with polygraph channels (EKG, oxygen saturation-SpO2 etc.) or video EEG monitoring. Most frequent EEG findings are slowing of background activity (less than 8 Hz) with intermittent theta and delta activity and sometimes disorganized activity. Sometimes slowing in some regions could point to underlying CNS lesions that were overlooked and thought to be part of the dementia process. Several case reports of clinical usefulness of EEG in diagnostic process of current mental state of patients with dementia will be presented. As psychiatrists we should use EEG more often as a valuable tool in the work up and differential diagnosis in dementia patients because it is non invasive, widely available, relatively easy and inexpensive test to perform. Changes in EEG activity could in some cases be an invaluable method to suggest doing neuroimaging studies.

P-34**EEG AND ERPs BIOMARKERS IN DEMENTIA RESEARCH: CURRENT STATE AND FUTURE PERSPECTIVES****Silvana Markovska-Simoska¹**, Nensi Manuseva², Nada Pop-Jordanova¹¹*Macedonian Academy of Sciences and Arts*²*University Psychiatry Clinic-Skopje*

EEG/ERPs represent a cost-effective, noninvasive brain imaging tools capable of identifying the earliest signs of brain dysfunction in subjects with evolving cognitive impairment or dementia (Prichep, 2007). Successful early detection of cognitive impairment in dementia demands the identification of biomarkers capable of distinguishing individuals with prodromal or early cognitive impairment from healthy aging adults. This paper reviews the role of EEG/ERPs as a biomarkers based on signal processing to detect dementia in early stages and classify its severity. This review focuses on the application of QEEG and ERPs technologies as markers of prodromal impairment and early disease progression. Promising biomarkers include: 1) increased power in the low frequency bands (i.e., theta, delta) with reductions in higher frequency bands (i.e., beta, gamma); 2) changes in amplitude and latency of evoked potentials for cognitive and sensory stimuli; 3) reduced complexity of EEG dynamics as measured with non-linear analyses; and 4) abnormal functional connectivity as assessed by ERPs, coherence, phase, and source localization (e.g., LORETA) analyses. We will present the obtained results from the most popular studies that may help in diagnosing dementia in early stages and classifying through signal processing and analysis. As a neuroimaging tool that is relatively inexpensive, potentially portable, and capable of providing high-density spatial mapping, QEEG/ERPs offers a noninvasive, rapid, and replicable method for assessing age-related and disease-related neurophysiologic change. The usage of neurometrics, e.g. currently available parameters of QEEG/ERPs databases broaden these opportunities. We can conclude that QEEG/ERPs are reliable, sensitive and easily-implementable biomarkers of cognitive decline in dementia. After summarizing the use of QEEG and ERPs as biomarkers for early cognitive change associated with dementia we will give overview where this field currently stands, as well as future directions for EEG/ERPs biomarkers development.

P-36**RISK OF ISCHEMIC STROKE WITH THE USE OF RISPERIDONE IN PATIENT WITH PARKINSON'S DEMENTIA: A CASE STUDY****Zoja Babinkostova**, Branislav Stefanovski*University Clinic of Psychiatry – Skopje*

Background: With an increase in antipsychotic use in the elderly, the safety profile of antipsychotics has been emphasized. Reported increased risk of cerebrovascular adverse events from olanzapine and risperidone in clinical trials of elderly demented patients, emphasize the importance of generating evidence for AAPs. In this article, an ischemic stroke case probably related to risperidone use is presented. Case presentation: A 69-year-old patient received a diagnosis of Parkinson's disease (PD) 5 years ago. Beside motor symptoms of PD (resting tremor, cog-wheel rigidity, bradykinesia), he had cognitive disturbances and weight loss. The patient received risperidone 2mg daily for treating his visual and auditory hallucinations 2 months prior his admittance to the emergency service with complaints of double vision, inability to move his eyes, balance impairment, sensory defects and dysarthria. These complaints developed after a sudden fall and a 1-h loss of consciousness. MRI examination was consistent with ischemic regions in the right pontine area. Risperidone treatment was stopped. The development of ischemic brainstem stroke in this patient

after initiation of risperidone therapy may suggest that risperidone has the capacity to induce stroke. Discussion and conclusions: Drug-induced hyperprolactinemia, which has been mostly seen with risperidone use, may promote platelet aggregation which could increase the risk of ischemic stroke. Orthostatic hypotension also has been mostly seen with risperidone use and may explain the fact that direct cardiovascular effects are related to increased risk of ischemic stroke. Among older patients already at high risk, exposure to antipsychotics might be an important factor precipitating stroke. The clinical implication is to start antipsychotics treatment at low dosages and to monitor closely the side effects in the initial treatment, particularly in older individuals and in the presence of dementia. Risperidone showed increased risk profile in geriatric patients and its prescribing should be done with increased caution.

P-37

FORENSIC ASPECTS OF HUNTINGTON DEMENTIA

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Huntington's disease is clinically characterised by a triad of motor impairment, psychiatric disorders, and cognitive decline. Although the diagnostic focus is aimed at the motor component, increasing evidence suggests cognitive and psychiatric symptoms may appear decades before motor deficits. We herein present a case of a 55-year-old man with genetically verified HD whose psychotic symptoms resulted in hospitalization in the forensic department for attempted murder. At the time of admission (2012) he presented with symptoms of paranoid schizophrenia (hallucinations, paranoid and religious delusions) and cognitive deterioration (short term memory loss, dysarthric speech, dyscalculia, constructional apraxia, attention deficits, deficits in visuomotor coordination, memory deficits). Collateral information revealed changes in his mental state and behavior 10 years prior to his first psychiatric treatment. A family history revealed that his mother died in her 50-ies from complications of dementia, and six siblings were diagnosed with schizophrenia and subsequently developed dementia. His cognitive dysfunction was initially understood as a negative symptom of schizophrenia. However, neurological examination in 2016 aroused suspicion of a potentially genetic etiology. This suspicion was substantiated by genetic testing and a diagnosis of HD was established. In 2017, at 53 years of age, he suffered a rapid decline in cognition and motor functions. Within months he had significant weight loss, was nonambulatory, could not independently take food, and had urinary and fecal incontinence. Clinically he manifested poor verbal contact, paranoid delusions, and psychomotor stiffness. Psychosis with significant cognitive deterioration in the context of significant hereditary burden could be unrecognized Huntington disease. In this patient, psychiatric and cognitive symptoms appeared a decade before motor symptoms. We believe his cognitive dysfunction, impaired judgment, and deficits in impulse control, in combination with his psychosis were responsible for the criminal offense and his hospitalization in the forensic department.

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LONG TERM CARE FOR PATIENTS WITH DEMENTIA IN PALIATIVE STAGE

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Вовед: Деменцијата е прогресивно невродегенеративно заболување, со ограничени можности за фармаколошки третман, како намалување на животниот век и квалитетот на животот на болните со деменција. Постојат повеќе видови деменција. Според одредени статистики Алцхамеровата деменција е најчеста форма на деменција. Во терминалната фаза од болеста пациентите со деменција се неподвижни и комплетно зависни од грижата и негата на блиските. Токму таквите болни се и најчести корисници на домовите за палијативна нега. Палијативната нега кај пациентите со деменција е подолготрајна од палијативната нега кај болните од карцином. Затоа болните со деменција се префрлаат на психогеријатриски оддел. ЈЗУ Спц болница за геријатриска и палијативна медицина, „13 Ноември“, Скопје. Освен што има хоспис во кој се хоспитализираат пациенти со карцином за палијативна нега има и психогеријатриски оддел во кој се хоспитализираат пациенти со деменција. **Цел:** Целта на трудот е да се види колку пациенти во терминална фаза на деменција се хоспитализираат во ЈЗУ Геронтолошки завод како и видот на деменција од кој боледуваат. **Материјал и методи:** Направена е ретроспективна анализа во период од една година (01.01.2016-31.12.2016) **Резултати:** Во овој период од една година во ЈЗУ Геронтолошки Завод хоспитализирани се 352 пациенти на возраст од 17 до 97 години (просечна возраст на пациентите 78 години). Од нив кај 109 пациенти (31%) била дијагностицирана деменција. Најчеста форма на деменција кај нашите пациенти е васкуларната 56%, Алцхајмерова деменција има кај 30% од пациентите. Забележливо е што просечната возраст кај пациентите со Алцхајмерова деменција е 75 години додека пак просечната возраст на пациенти хоспитализирани со васкуларна и останати форми на деменција се 81 и 84 години соодветно. **Заклучок** Според нашата студија најчеста форма на деменција е васкуларната поради коморбидитетите кои ги имаат пациентите. Пациентите со Алцхајмерова деменција се помалку на број, но за разлика од останатите се помлади. И кон првите и кон вторите ЈЗУ Спц болница за геријатриска и палијативна медицина „13 Ноември“, грижата кон овие болни е со мултидисциплинарен пристап со здравствени работници од различни профили.

P-39**EXECUTIVE FUNCTIONING IN PATIENTS WITH VASCULAR COGNITIVE IMPAIRMENT, CLINICAL AND FUNCTIONAL CORRELATES**

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Objectives: Description of data of neurocognitive testing in a series of patients with mild cognitive impairment and dementia due to cerebrovascular disease, psychopathological and functional correlates. **Background:** There is quite a lot of data from research in the field of dementia and its prodromal phases indicating that executive dysfunction is seriously impaired not only in frontotemporal lobar degeneration and subcortical degenerative diseases, but in vascular cognitive impairment, not infrequently disproportionately compared to other cognitive domains. There are clear correlations with functional level, and not so clear correlations on the level of clinical psychopathology. More data and experience with this respect would be valuable. **Materials and Methods:** Study (neurocognitive and clinical) of series of hospitalized patients suffering from vascular cognitive impairment (mild or moderate dementia), review of relevant literature. **Results:** Our findings are in accordance with data pointing that dysfunction in executive domain is prominent in vascular cognitive impairment (both mild and major/dementia). Especially conspicuous are problems in motor sequences, perseverative errors in Go-No Go paradigm performed after testing

with contradictory commands, low scores in literal fluency, compared to categorical, far less impaired. In most of the cases affective symptoms were prominent (predominantly depressive), and more rarely psychotic symptoms occurred, usually in the presence of affective ones. Conclusions: Results of neurocognitive testing are of great value in differentiation of vascular cognitive impairment from this seen in Alzheimer's and other diseases in patient with late onset psychopathology. There is no clear model of correlation between the severity of affective and psychotic symptoms and axial psychopathological syndrom of cognitive deficits. The more preserved cognitive/executive control is, the more preserved is the adaptation to the environment.

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MARCHIAFAVA-BIGNAMI DISEASE: CASE REPORT

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Marchiafava-Bignami disease (MBD) is a rare CNS disorder of unknown etiology, generally associated with a history of chronic alcohol consumption or malnutrition. The diagnosis is based on features of neuroimaging studies characterized by demyelination of the corpus callosum. The disease can be acute, subacute, or chronic and has varied neuropsychiatric manifestations. Specific and well defined therapy is not available. Treatment with thiamine and other B vitamins have been used and some patients have recovered. We report a case of acute MBD which presented with seizure and impaired consciousness. 49-year-old single man, retired Croatian war veteran, with past psychiatric history of alcoholism, as well as medical history of hypothyroidism, was admitted to hospital after few days of vomiting. He had generalized tonic-clonic seizure. He was confused and disoriented. The patient was worked up by neurologist for seizure and acute confusional state. The corpus callosum appears hypodense on CT scans, MRI revealed callosal injuries hyperintense on T2, extended to the genu and adjacent white matter. He was administered B vitamins and oxcarbamazepine. Two years later he was admitted to psychiatric hospital for persistent psychomotor agitation. Patient was of poor verbal contact, disoriented in place, time and to other persons, but could relate to his caregivers, partially oriented towards himself, restless, emotionally incontinent, with decreased attention, loud speech and use of profanity. He had gait instability which resulted in a few accidental falls. Later in disease he was making only an eye contact and the only thing he was saying was "av, av". As the etiology of this disease remains uncertain, specific therapy is not available. Therapeutic failure is not uncommon even if treatment is started in the beginning of symptoms.

P-41

A BATTLE WITH MR ALZHEIMER AND MRS DEPRESSION

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Introduction: Alzheimer dementia is the most terrible battle against our remembers. When you lost memory, you are losing yourself. As a psychiatrist we have a drug palett for succesful battle. Material and methods: 76-year-old patient, a widower, a father of 2 adults with secondary education education officer retired, lives together in a family house of a family of one kid. Forgetfulness, lost in conversation, confused, somatic difficulties, fractures, tumor of pelvis, operative treatment.

Decreased quality of family life. MMSE at first meeting a mild disorder consciousness. Psychological exam: cognitive decline is recorded abilities of the type of confused opinion with occasional blocks, stressed mementos of difficulty and reduced ability for orientation in space and time. From neuropsychological analysis, signs of decreased are obtained visio-perceptive abilities, confused the given contents, persevere, modify the forms and omit the figures. Dominated by depressive symptomatology. Conclusion: goes in favor of psycho-organ syndrome. KTM on the head: Global cortical atrophic changes with axially dilated subarachnoidal spaces and chamber system, free. Treatment: Donepezil and Memantine gradual improvement for two months. Stabilization of the situation after six monthly therapy. Maintenance therapy with Donepezil and Memantine for four years. Sertraline in high dosage for successfully treatment of depression for one year. Conclusions: Doses of Donepezil and Memantin, such as are recommended giving long-term support and maximum improvement in their combination. They are safe for long-term treatment, economically accessible to all patients. Easily combine with other drugs without significant interactions with them like antidepressant drug as sertraline.

P-42

LATE ONSET DEPRESSION AND ALZHEIMER DISEASE: DIAGNOSTIC RIDDLE

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Introduction: Recent studies have shown that elderly who suffer from depression are under high risk of developing dementia, including Alzheimers' dementia. Among that, several other studies proved that depressive pseudodementia can develop into irreversible dementia. Case report: Patient was a woman in her third period of life, whose psychic problems started after intense emotional breakdown, with depressive symptomatology and cognitive impairment. She was outpatient at first; afterwards she was hospitalized in Psychiatric Clinic from where she was discharged with diagnosis F 33.2 (Major depressive disorder, recurrent severe without psychotic features) and F 43.8 (Other reactions to severe stress). Escitalopram was administered and gave no significant effect. Worsening of the mental state started month before admission to the hospital; she was moody, anxious with weakening of cognitive functions, she wasn't able to perform tasks by herself, she seemed confused and distant. At admission, HAMD score was 25 and MMS score was 15. In consideration to her symptomatology and examinations that were done, we added antidementic medication to antidepressant whose dose we elevated. In time and with psychopharmacotherapy, she was relaxed, gained her appetite and sleep was stabilized, however it became obvious that she was all time confused, disoriented, damaged memory for fresh events. Her verbal expression was non-specific, with confabulations and stereotypic answers. Examinations done: structural psychiatric interview, laboratory tests, internist examination, neurocranial CT - there were corticoatrophic changes at the very beginning and psychological examination. There were slight improvement of her mental status, repeated MMS score was 14, which implicated severe cognitive deficit. Considering results of diagnostics that was done as well as symptoms that were presented and the progress of the disease, patient was discharged with Alzheimers' dementia. Instead of conclusion: In depressive condition that occur in elderly, especially in third period of life, one should always consider dementia and direct diagnostics and therapy in that way.

P-43

FORENSIC POLARITY: IMPORTANCE OF CONSCIOUS FORENSIC EXPERTISE

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Introduction: Forensic psychiatry was considered as separate branch of psychiatry since it was said that it is with one foot in clinical psychiatry and with the other, in law. On that way, responsibility of forensic psychiatrist is higher than that of clinical psychiatrist. Forensic report is of highest importance and has determining role in law. Case report: M.K was raised in family with positive psychiatric heredity. He had ideal marriage, but after he had prostatic surgery, his spouse abandoned him. Later one, he was convict for murdering her. Although forensics expertise was already done in another hospital, Court requested another one. First team of forensic expertise made conclusion that murder was consequence of limbic psychotic trigger action. During expertise in our hospital, the convict was extremely servile, trying to fascinate doctors, at the same time pretending to be the victim who was abandoned by the family. There was nothing significant in his psychic status except that he was unsure about recent events, while older ones he could recall with clarity. It was our judgement that he was prone to exaggeration. Final conclusion of our expertise was that convict during his lifetime, did not suffer from any permanent nor temporary mental difficulty of any kind. His mental state was slightly disturbed because of development of dementia. The ability to understand the felony he was convict of was decreased but not significantly; ability to manage his actions was at first decreased but not significantly but later, while he was doing the action, it was significantly decreased. The convict had mixed personality disorder and was suffering from organic psychic disturbances – mild degree vascular dementia with tendency of further progression. Conclusion: Considering pathological lines of personality altogether with elements of initial organic malformations, high degree of bad temper and duration of crime action, our forensic rapport was that possibility of convict to understand significance of action tempore crimins was significantly decreased. We disagree that it was limbic psychotic trigger action since one of the main criteria for that diagnosis is clear conscious and recollection of crime action as well as lack of motivation, which clearly was not present in this case.

P-44

FAHR'S DISEASE AND THE DETERIORATION OF COGNITIVE FUNCTIONS

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Fahr's disease is an uncommon, genetically heterogeneous disease of neurologic origin, characterized by abnormal deposits of calcium in parts of the brain that control movement. Fahr's disease presents with a triad of symptoms: 1. simetric calcifications in the basal ganglia 2. Neuropsychiatric symptoms 3. Hypoparathyroidism. 66 year old male patient, retired salesman, without children, undergoing psychiatric treatment with multiple hospital admissions, is admitted for inpatient treatment due to progressive cognitive function deterioration, periodically exhibiting auto-aggressive behavior. His last hospitalization, in the same institution, was a month prior, when he was diagnosed with Psycho-organic syndrome, Organic affective disorder, Hypoparathyroidism,

Hypocalcemia, Morbus Fahr, Diabetes mellitus type II, Hypertension, Gastritis, Hypothyroidism and sleep apnea. The patient was of a neglected outer appearance, of poor verbal contact, emotionally incontinent, of a low mood, presented mild psychomotor agitation, with occasional tics and progressive deterioration of cognitive functions. The presentation of clinical symptoms was dominated by profound organic dysfunction, including a reduction of cognitive potentials, superficial and labile affect. Psychopharmacologic treatment included moclobemide, oxazepam and calcitriol, resulting in a calming of psychomotor agitation, improvement in affect and volitive functions but without an improvement in cognition, still the patient was well enough to be able to function in a sheltered environment. Patients with organic affective disorder and cognitive deterioration may have an underlying neurological illness, as was the case with our patient.

P-45**COMPARISON BETWEEN THE MINI MENTAL STATE EXAMINATION AND RAVLT IN HIGHLY EDUCATED INDIVIDUALS**

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Background: The Mini-Mental State Examination (MMSE) is the most commonly administered psychometric screening assessment of cognitive functioning. The studies have been focused almost on the impact of lower levels of education, whereas there is relatively little information regarding appropriate cut-scores or interpretive strategies for highly educated individuals. In our study, we compare the utility of Mini-Mental State Examination (MMSE) scores and RAVLT in detecting cognitive dysfunction and discriminating between patients with mild cognitive impairment (MCI) and Alzheimer's disease (AD) in a small group in highly educated individuals. Methods: Ten participants (6 females, 4 males) > 65 years, with 16 or more years education with the score of MMSE >24, who present complaints of cognitive decline (self-or other-report), were recruited. All participants consented to examination with RAVLT and other neuropsychological assessments. Results: In this sample of highly educated older adults (>65 years) with the MMSE score > 24, the range of scores of RAVLT in regarding of the norm means for the select age group were less than Norm Mean for Trial I, Trial V, Total Words Over 5 Trials, and Delayed Recall. Conclusions: The current findings are not intended to encourage the diagnosis of cognitive impairment or dementia based on total MMSE scores alone. The RAVLT is a more useful and more sensitive instrument to discriminate cognitive dysfunction in highly educated individuals. Elderly patients with 16 or more years education who present complaints of cognitive decline (self- or other-report) though they have scored higher than 24 on the MMSE are at greater risk of being diagnosed with dementia and should be referred for a comprehensive dementia evaluation, including formal neuropsychological testing.

P-46**TREATMENT OF DEMENTIA WITH MEMANTINE**

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Objective-use of Memantine in dementia as an over-stimulation of M-methyl-D-aspartate (NMDA) receptors with Glutamate. Methods - Patients were examined in two groups, controlled and examined with diagnosis dementia. Examinees from the control group were not treated with Memantine, while the examinees from the study group who were treated with the same drug. The

test period is 6 months. Used with eccentric tests. Results-The same number of patients-58 were examined in two groups, controlled and examined. All the examines completed the study. Patients who received Memantine had a better result than those who did not receive. Memantine was not associated with a significant incidence of adverse effects. Our data show that Memantine reduces the fall in patients with moderate to severe Dementia. Conclusions-Treatment with (antiglutamatic treatment) reduced the clinical deterioration of moderate to severe dementia.

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VIOLENT BEHAVIOR AND CRIMINAL ACTS OF DEMENTION

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Often it happens that geriatric patients are the cause of crime. The purpose of the study is to present the criminal behavior of court-psychiatric patients. The influence of violent manifestations such as aggressiveness, suicide, homocid in the demented population will also be analyzed. It will also analyze the comorbidity of people with dementia with alcoholism or other addictions as well as their psychological states during the commission of the crime, which assesses the ability to understand the meaning of their crime and the management of its „tempore criminis” actions. Special emphasis is put on the business ability in such situations.

P-48

DEAD MAN WALKING - COTARD'S SYNDROME CASE REPORT AND LITERATURE REVIEW

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Background: The noncognitive form of dementia, Cotard's Syndrome (CS), presents as a rare clinical condition usually found in elderly patients characterized by the initial treatment-resistant nihilistic delusions of being already dead and the belief of having no longer any organs. The severity of the symptoms and their early pharmacoresistance carries a certain risk of misdiagnosis and mistreatment when the syndrome is not recognized and treated properly. Objectives: The main aim of this abstract is to reintroduce the clinical significance of Cotard's syndrome, explore the key features and possible treatment through the lens of a case presentation supported with relevant literature review. Methods: Pubmed and Google Scholar searches were conducted for relevant published texts and articles. Search terms included Cotard's syndrome, Cotard delusion, and dementia. Publications found through this indexed search were reviewed for more relevant references. Results and conclusion: The syndrome of Cotard is usually masked by overwhelming number of symptoms that frequently overlap between major depression and dementia which proves making the correct diagnosis difficult. Prolonged treatment with acetylcholinesterase and NMDA blocker fails to yield reduction in symptoms, therefore antidepressant, antipsychotic, and mood stabilizing drugs are used. Published studies are limited to small samples and isolated cases, which leads to the conclusion that this syndrome is underreported and understudied, making way for future possible future investigation.

P-49**DEPRESSION AND DEMENTIA IN PSYCHIATRIC PRACTICE****Angelina Ilievska***Center for Mental Health KALINKA*

Objectives: According to clinical practice, and confirmed in many scientific studies, there is a close correlation between depression and dementia. Depression can be a risk factor, a prodrome, and an accompanying symptom of people with Alzheimer's dementia [1]. Aim: The aim of this paper is to emphasize the need for a serious approach and further neurological investigations in cases of cognitive impairments in depression. Methods: Descriptive presentation of three case studies. Referral for treatment were psychological symptoms of depression. A clinical interview with psychiatric examination, Mini-Mental State Exam (MSE) and psychological testing were applied. Further procedures were: neurological examination, neurobiological test battery (NTB) and MRI of the brain. Results: In addition to clinical depression, cognitive impairments were identified. Dementia has been diagnosed in all three cases. Regarding the type, one case was vascular, and the other two cortical with diffuse reductive changes. Conclusion: According to some data, the prevalence of depression in dementia has been reported to be 20-60% [2]. Depression is often the first and early symptom of some forms of dementia. The clinical picture may be masked by overlapping of the symptoms. Early detection and interdisciplinary approach are needed for effective treatment.

P-50**A BRIEF REVIEW FOR SITUATION AND APPROACH TO THE DEMENTIA PROBLEM IN KOSOVO****Naim Fanaj¹, Imet Poniku²**¹*College of Medical Sciences REZONANCA Prishtina*²*Regional Hospital Prizren*

Introduction: Despite the fact that Dementia is prioritized because it has significant health, social and economic significance, this is a neglected area of public health, especially in developing countries. Objectives: Recognition of the situation and approach to the Dementia problem in Kosovo. Methodology: A number of published mental health reports, articles and publications found in popular online science databases have been reviewed: PsycINFO, PubMed, Directory of Open Access Journals, ScienceDirect.com, Google Scholar and Google. As search words are placed: Kosovo, Dementia, Alzheimer's. Results: No strategy for health / mental health has included the category of people suffering from dementia. In the official annual mental health reports, there are no figures for treating cases with dementia in the categorization of patients treated according to diagnostic groups. No research published on this subject. Only a published abstract can be found which has the object of depression in the elderly and where dementia cases are mentioned. Two published publications that target the elderly and their medical and socioeconomic circumstances do not mention Alzheimer's Dementia at all. Kosovo has only one home for elderly people, which does not accept cases of dementia. Conclusions: In Kosovo, the lack of awareness around Alzheimer's is apparent. Despite the fact of many peoples suffering from Dementia, there is no statistical official data. There is lack of services / facilities.

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PREVALENCE OF DEMENTIA IN MACEDONIA

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Aim: to estimate the prevalence of dementia in North Macedonia. Methods: Forty-six general practitioners (GP) surgeries from 20 cities in Macedonia took part in the project. All individuals age over 65 years with diagnosis of dementia were identified from GP electronic disease registers. Results: Based on the diagnosis, 451 (3.5%) patients were identified from a total population of 12926 over 65s. The most common dementia was Alzheimer's dementia 294 (65.3%) followed by vascular dementia 27.11%. The average age of respondents in the study was 77.5 ± 8.2 years, with 50% patients under the age of 79 years, 65.6% were female and 68.4% were with elementary school. In the entire sample, most of the patients diagnosed with dementia 195 (43.3%) said they lived with another family member. The most common risk factor among patients with dementia was hypertension (85.1 %), followed by stroke / transitory ischemic attacks (29.3%) and equal percentage, i.e. 26.4% of patients had high levels of cholesterol and diabetes. To 242 (53.8%) acetylcholinesterase inhibitors were prescribed (donepezil, rivastigmine, galantamine), 77 (17.1%) memantine, while 247 (54.9%) another OTC therapy. 227 (0.4%) reported that they did not receive treatment. An additional analysis of the reasons for not receiving treatment was made on this sample of patients who did not receive treatment. It was found that in the majority of these patients (more than 50%) the reason for not receiving therapy was that they were not prescribed, in 142 (62.6%). Conclusion: This is the first national representative study of dementia prevalence in North Macedonia. Those data can provide information for healthcare needs people with dementia.

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VISUAL HALLUCINATIONS IN DEMENTIA, CHARLES-BONNET SYNDROME, PITUITARY MACRO-ADENOMA: A CASE REPORT

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We present a case of a woman aged 78 years, with incipient clinical signs of dementia, that were not recognized by her family. She was psychologically normal individual. The only thing she was complaining about was her progressive visual loss. She was admitted to the neurological office because she experienced complex visual hallucinations for the first time in her life. There were no signs of parkinsonism, nor positive pharmacological history for medications that could produce hallucinations. Even though on the first sight it looks like we need to differentiate the dementia type, Alzheimer type or dementia with Lewy bodies, on the follow up examinations, neurophysiological and neuroimaging methods were used (EEG, VEP, brain CT and MRI). EEG showed attenuation of the physiological rhythms. VEP showed affection of the visual pathways. Using neuroimaging studies, CT and MRI of the brain, besides cortical reductive changes, we detected pituitary gland macro-adenoma, with compressive effect on the optic chiasm. We found out similar, but rare cases of Charles-Bonnet syndrome in the literature. The question is what are the treatment options in this case.

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ACTIVE AGEING - "SUCCESSFUL AGING"

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Active ageing allows people to realize their potential for physical, social, and mental well being throughout the life course and to participate in society according to their needs, desires and capacities, while providing them with adequate protection, security and care when they require assistance. Continuing participation in social, economic, cultural, spiritual and civic affairs, not just the ability to be physically active. Older people who retire from work and those who are ill or live with disabilities can remain active contributors to their families, peers, communities and nations. Interdisciplinary approach in nursing home Sun in Skopje provide health, care for older people.

P-54**NEED FOR PALLIATIVE CARE FOR NEURODEGENERATIVE DISEASES****Pavlinka Milosavljevik**, Maja Spirova*PHO Specialised Hospital for geriatric and palliative medicine "13 Noemvri " Skopje*

Introduction: Neurodegenerative conditions(dementia, Parkinsons disease,motor neuron disease,Huntinton disease,...)are progressive and incurable conditions that ultimately lead to a state of total function incapacitation and death. The new concept of palliative care supports the idea of palliation as an early approach to patients affected by disabling and life limiting disease which focuses on the patients quality of life along the entire course of disease(from diagnosis to death). The realization of an effective palliative care in neurodegenerative diseases may present unique challenges and requires specific skills and expertise to adapt the concept of palliation to the complexity and variability of symptoms, clinical course, disability and prognosis which can be for a long period (months and years).To identify and face the patients needs requires the services and action of a multidisciplinary team in which the neurologist should play a central role.The neurologist should be trained in these issues. Methods:This review is based on evidence from pre-existing medical literature and authors personal experiences and observation.As a neurologist in a PHO Specialised Hospital for geriatric and palliative medicine -13 Noemvri – Skopje- NR of Macedonia I am well aware of the importance of palliative care in the management of neurodegenerative disease.From our retrospective study in a period of 4 years (01.01.2015-.1.1.2019) in our hospital from 2730 patients , 26,1% were patients with neurodegenerative conditions(dementia-652 patients, Parkinson-51, motor neuron disease-1, Huntington disease 2...) Conclusion:There is a significant need for Integrating palliative care into neurological practice with specialist training for neurologist .Including early intergration of palliative care for patients affected by neurodegenerative conditions., including advance care planning.

P-55**PATIENTS WITH COGNITIVE DEFICIT TREATED IN GOB 8MI SEPTEMVRI, SKOPJE IN THE PERIOD OF 2015-2018****Ljubinka Spirkoska**, Mirjana Saveska, Jasmina Stepanoska*GOB 8mi Septemvri Skopje*

Истражувањето е реализирано во ЈЗУ ГОБ „8ми Септември“ од базата на податоци кај испитаници лекувани на ургентен центар, хируршките и интернистичките одделенија кои се во склоп на Болницата од страна на докторите Одделот за Психијатрија. Направена е кластер анализа на пациенти со редукција на когнитивните функции и бихејвиоралните манифестации во периодот од 4 години од 2015-2018 год. со дијагнози од F00-F09 по критериумите на

МКБ-10. Анализата е направена со цел на добивање на податоци за бројот и процентот на пациенти кои се прегледани и лекувани на другите оддели во склоп на Болницата. Студијата е ретроспективна, клиничко епидемиолошка. Од вкупниот број на прегледани пациенти во 2015година-1098 кај 253 пациенти или 25,3% , во 2016година- 1119 кај 240 пациенти или 21%, во 2017 година-1293-249 пациенти или 19% и во 2018година- 1452 кај 275 или 19% е дијагностицирана редукција на когнитивните функции и бихејвиоралните манифестации кои се во склоп на дементно растројтво. Од вкупниот број на прегледани пациенти со деменција во Одделите во ЈЗУ ГОБ „8ми Септември“, најголем број се прегледни во Ургентниот центар , но од добиените резултати евидентно е дека последните години се намалува бројот на пациенти кои бараат помош во Ургентниот Центар.

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DEMENTIA AND DEPRESSION COMORBIDITY – CASE REPORT

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Introduction: Depression is one of the most psychiatric disorder that affects all ages. When it occurs in elderly people it can be recognized by mistake as a psycho organic disorder – Dementia. Many of the symptoms that are specific for affective disorder in elderly can mimic dementia which makes the adequate diagnosing pretty difficult. The situation gets pretty complicated when both of the conditions occur together, or the depression precedes the dementia along with somatic comorbidity. Both conditions in elderly people are often unrecognized and misdiagnosed and therefore inadequate treated. Material and Methods: case report of a female patient 61 years of age, treated in a hospital and outpatient conditions. Patient was diagnosed according to ICD 10 classification by means of a clinically conducted interview, psychological instruments and CT scan on brain was also conducted.

Woman, 61 years. High education, lives with her husband and daughter. First admission to the Clinic, with Dg. F33, due to the following symptoms: Fatigue, apathy, loss of concentration, loss of appetite, insomnia, mistakes in everyday life like misusing money, difficulties with using and remembering names.. The beginning of symptoms was 5 years ago and they occurred after a stressful event. Her condition was treated with an SSRI drug with good response of the therapy. Half a year ago despite the use of the antidepressant, her condition got worse particularly with memory problems, loss of will in the morning, psychomotor agitation etc. Change of therapy was made and she was put on SNRI drug and also a low dose of antipsychotic drug was added. No improvement was detected and that was a reason for hospitalization. During hospital treatment a neurocognitive tests were made and also a CT brain scan. The results were of early onset Dementia so the treatment began with a proper medicaments. Discussion: Dementia is a condition that is often unrecognized or misdiagnosed. The situation as described in this case report gets more complicated when a patient has a history of previous affective disorder. The first symptoms of Dementia are mistakenly treated as a relapse in Major depression so the time that is lost in adequate diagnose and treatment is significant.

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A PRION CASE PRESENTED WITH CEREBELLAR SYMPTOMS

Buket şahin, Fatmanur Altunsoy, Ayhan Köksal

Prion diseases are a group of progressive neurodegenerative diseases that are caused by misfolded proteins. The best-known human prion disease is Creutzfeld-Jakob disease. Rapidly progressive mental deterioration and myoclonus are the two cardinal clinical manifestations. Death usually

occurs within one year of symptom onset. A 63 year old male admitted to the hospital with 1 month history of apathy, disorientation, dizziness, speech and gait disturbance. There were no medical history of any diseases or medication. In his neurological examination he was awake, apathic, and disorientated. He had a severe truncal ataxia and couldn't stand on his own. Also he had bilateral dysmetria and dysdiadokokinesia. His mini mental state exam score was 21. Diffusion weighted imaging revealed a subacute left cerebellar infarction. To clarify his level of awareness and bilateral cerebellar symptoms which couldn't explain with a left sided infarction a cranial magnetic resonance imaging was performed and it showed right parietal ribbon sign and bilateral basal ganglia hyperintensities. His first electroencephalography (EEG) was normal. Following EEG studies showed generalized slow wave activity and later periodic generalized sharp wave discharges. Lumbar puncture was performed. Cerebrospinal fluid analysis showed 500 erythrocytes/mm³ and biochemical parameters were normal. 14-3-3 protein level was elevated. The patient was diagnosed with a prion disease. Later he developed myoclonic jerks and swallowing difficulty. Valproate 500mg/day was given to him. He couldn't tolerate nasogastric catheter and percutane endoscopic gastroscopy was performed. He was discharged with his present condition. Our patient approached to us with both cognitive impairment and cerebellar dysfunction. His subacute infarction in diffusion weighted MRI couldn't fully explain his complains and findings. So further examination were performed and revealed a prion disease. Patients with both ischemic lesions and cognitive impairment can be confused with vascular dementia. This case is a good example to discriminate this two diseases.

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HYPERHOMOCYSTEINEMIA AND THE RISK OF INCIDENT DEMENTIA IN ISCHEMIC STROKE PATIENTS

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Background: Increased total homocysteine (tHcy) level (hyperhomocysteinemia) has been identified as a potential risk factor for ischemic stroke and dementia. Aim: To investigate whether hyperhomocysteinemia affects the known association between dementia and ischemic stroke. Material and methods: Under a case control design, we extended the length of follow-up of the participants that provided informed consent assessment procedures. Complete data were available for 142 of the 425 eligible participants aged ≥ 18 years residing in the Lower Pollog (north-west region of North Macedonia). Baseline brain CT and/or MRI was used to confirmed first-ever ischemic stroke (FIS) to 39 patients (median age, 62 years [range 44 to 82 years]). 103 healthy subjects (median age, 51 years [range 27 to 71 years]), were used as a reference group. All considered eligible participants for the present study were screened with the Mini-Mental State Examination (MMSE) and they had a baseline MMSE score ≥ 24 . Results: Mean plasma tHcy and prevalence of hyperhomocysteinemia were high in MTHFR carriers than in no carriers, but only in patients with FIS. Cognitive decline (baseline MMSE score 26.95 ± 1.572) occurred only in patients with tHcy $> 19 \mu\text{mol}$, while incident dementia after three months of follow-up in FIS patients with tHcy $> 23 \mu\text{mol}$. The overall prevalence of dementia was 5.13%. Demented patients were no significantly older than no demented patients (75.0 versus 61.89 year, respectively); they higher tHcy levels (24.50 versus 19.49 $\mu\text{mol/L}$, respectively). Conclusion: The lack of difference in mean tHcy across the 677 MTHFR genotypes is in agreement with results from other studies, which suggests that effect of the 677 MTHFR variant loses importance in older age. Independent from MTHFR status, prevalence of hyperhomocysteinemia did not differ between demented and no demented patients with FIS, but the presence of one condition increases the association of hyperhomocysteinemia with other condition.

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DEMENTIA AND THE POTENTIAL BENEFITS OF LIFESTYLE MODIFICATIONS

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Dementia is a major global health challenge, and it is expected to rise further due to the aging population. In addition to pharmacological therapies, research interest has been increasing in lifestyle modifications that could prevent, postpone the clinical syndrome or decelerate progression of dementia. This review aims to summarize the recent findings regarding the modifiable lifestyle risk factors and the potential benefits of lifestyle modification for patients. In a recent systematic review, modifiable risk and protective factors for dementia were recognized (Deckers et al., 2015). Identified risk factors were depression, diabetes, physical inactivity, (midlife) hypertension, (midlife) obesity, smoking, high cholesterol, coronary heart disease, renal dysfunction, and low unsaturated fat intake, while high cognitive activity, low/moderate alcohol consumption, and Mediterranean diet were identified as protective factors. Recent prospective studies have even suggested that higher adherence to a specific diet (Mediterranean) could be associated with slower cognitive decline, reduced risk of progression from mild cognitive impairment to Alzheimer's dementia, reduced risk of Alzheimer's dementia, and decreased all-causes mortality in patients with dementia, although further research is needed. Given the limited therapeutic capabilities of currently used pharmacological solutions, it seems prudent to explore new strategies that might harness the potential of the modifiable lifestyle factors.

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PSYCHOORGANIC SYNDROME (SAH) - CASE STUDY

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Цел: Неопходност од навремена дијагноза во превенција на компликации на клиничката слика. Материјал и методи: Приказ на случај на пациентка со Dg. Sy. Psychoorganicum, по SAH. Анамнеза: М. Б, 58 год. , мажена, високо образование, мајка на две деца. Еден месец пред САХ пациентката се оплакувала на силна главоболка, била со дискретно спуштен десен агол на устата. Невролог назначил: РТГ на Ц рбет кој покажал дегенеративни промени, закажан КТ на мозок по 1 месец. По 1 месец пациентката утрото се разбудила конфузна, несоодветна во однесувањето, со искривување на десен усен агол, неразбирлив говор, слабост на деснострани екстремитети. Клиничката слика напредувала со засегање на свеста, со проширување на двете зеници. Примена и веднаш оперирана на УК за Неврохирургија со DG: Coma cerebrale spontanea. Aneurisma arteriae cerebri media l. sin. Rupture. Haemorrhagia subarachnoidalis spontanea diffusa. Haemorrhagia intracerebralis regionis fronto-temporalis l. sin. Hemiplegia l. dex. Midriasis bil. Третирана со медикаментозна, физикална терапија и логопед, со што се продолжило и во домашни услови, вертикализирана. По неколку месеци при невропсихијатрискиот преглед од наша страна констатиран е психооргански синдром со: хемипареа на деснострани екстремитети од спастичен тип, поизразено на десна рака, моторна дисфазија. Во психичкиот статус: Свесна, ориентирана во простор и према личности, дезориентирана во време, брадипсихична. Вербален контакт тешко се воспоставува и одржува заради моторната дисфазија, депресивен афект и расположение, ледирани интелектуално-мнестички капацитети. Психолошко тестирање во прилог на Дг. Заклучок: Потребно е сериозно проследување со детална анамнеза, невролошки преглед,

навремено дијагностицирање на секое сомнение за невролошка состојба (анеуризма, ЦВИ...), за да се превенираат последиците од истите со психооргански синдром.

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EFFECTS OF SOCIAL PARTICIPATION ON MILD ALZHEIMER'S DISEASE PATIENTS AND EVERYDAY FUNCTIONING THROUGH COGNITIVE PERFORMANCES

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Background: There is a great interest in identifying non-pharmacological approaches for the prevention of Alzheimer's disease, with the specific aim to retain cognitive vitality and functional independence for as long as possible. There are plenty of longitudinal studies supporting the hypothesis that social participation (being socially active, maintaining a large degree of social connections) greatly benefits the cognition and functioning of older people. The main objective of the study was to examine the relationship between social participation and everyday functioning through cognitive performances in mild Alzheimer's disease patients and healthy control group.

Methods: A cross-sectional design study was applied including a hundred Macedonians (54 females, 46 males), aged from 64 to 85 years old (M=73.3). A score over 23 in the Mini-Mental State Examination was used as inclusion criteria for the healthy group, while 50 older adults were chosen based on an official clinical diagnosis of mild Alzheimer's disease. Both groups of participants completed the same set of neuropsychological tests (Trial Making Test Part A; Trial Making Test Part B; Digit Span Forward; Digit Span Backward; and Verbal Fluency Test), a questionnaire for social participation, and the Lawton Instrumental Activities of Daily Living Scale. Findings: The findings showed that engaging in social participation is an important predictor for everyday functionality ($\beta=-.391$; $t=2.341$; $p<.05$) as well as that is an important predictor for working memory ($\beta=-.221$; $t=1.922$; $p<.05$) in healthy control group.

Discussion: The results are consistent with previous studies where participation in social activities improves cognition in healthy older adults. To address the needs of the increasing ageing population, we should invest in additional research, development of policies; evidence based preventive programmes and programmes for early detection and treatment.

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PRODROMAL SYMPTOMS IN ALZHEIMER'S DISEASE EARLY-ONSET

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Alzheimer's disease is a neurodegenerative disease that causes problems with memory, thinking, behavior and various symptoms of non-cognitive nature. It is thought that depression more often occurs in the early stages of the disease. Female person at age 36. Symptoms occur after the birth of her third child, 2015 year. Primary symptomatology: headache, dizziness, tension, crying. The symptoms worsened over presented with: nervousness, mood swings, lethargy. Treated with anxiolytics and antidepressants since 2015. Clinical examination: Brain KT (2015), with a regular diagnosis; Color Doppler angiography of neck and cerebral blood vessels (October 2018) - a finding in addition to the vascular-tension nature of headaches. Memantine therapy, 10 mg per day follows. Patient asks for second opinion, January 2019. She complains of forgetfulness, headache, occasionally tension, spontaneous crying, insomnia. Forgetfulness is associated with stress conditions and covers new events. The person leaves an impression like absent from the

events. Unable for everyday activities. The familial history states that her mother died of dementia at about 40 years of age, and her brother has similar difficulties. Psychological testing: Bender Gestalt test, clock test with orderly finding. MMPI: elevated scale for depression and hypochondria. (January, 2019) Despite the therapy, the symptoms of forgetfulness, headache, difficulty in everyday functioning persists. Further investigations - neuropsychological testing - cognitive status: difficulties in time orientation, reduction in the domain of remembering new contents and categorical fluency. Conclusion: Probable M Alzheimer Early onset. Additional research follows.

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WERNICKE-KORSAKOFF SYNDROME - CASE REPORT

Jasmina Stepanoska, Nikola Olumchev, Mirjana Saveska, Natasha Markovska
GCH „8th September“-Skopje

Вернике-Корсаковиот синдром може многу ретко да го видиме и целосно дијагностицираме во нашата практика бидејќи преваленцата е 0-2% од вкупната популацијата. Пациент на 60 годишна возраст кој повеќе од 30год. наназад употребувал, а последниве 8-9 год злоупотребувал алкохол. За прв пат лекуван во ПБ-Скопје поради делириум две недели пред приемот актуелниот прием на нашето одделение. Хоспитализацијата е реализирана поради: секојдневна злоупотреба на жесток алкохол, заборавеност особено на нови настани, конфузност, отежнат од. Психички статус: астеничен, брадипсихичен, хипомимичен. Свесен уредно ориентиран кон личности, но дезориентиран во време и простор со афективно бледило. Мисловен дуктус по форма успорен сирумашен со блокови и дисоциран, со редукција на когнитивни и бихејвиорални функции. Невролошки статус: билатерална, симетрична, дистална хипотрофично, хипотонична слабост на долни ектемитети, од атаксичен со испади на сенбилитетот во прилог на полиневропатија, со поживи рефлексни одговори. Параклиничките испитувања на одделение: специфични лабораториски анализи покачени вредности на хепатални ензими, намален тиамин Б1. КТ на мозок со мултипни лакуларни инфаркти и глобални кортикални редуктивни промени дилатација на комори, психолошки наод и мислење во прилог на когнитивен дефицит, конзилиарни прегледи, ехо прегледи. Пациентот беше третиран со витаминска супституциона терапија –тиамин Б1, симтоматска, анксиолитична терапија и базален невролептик по што се следеше стабилна апстиненција и делумно намалување на конфузноста. Кај пациентот беа направени сите дијагностички иследувања потребни за дијагностицирање Вернике-Корсаков синдром и сите иследувања одат во прилог на диферцијалната дијагнозата.

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DEMENTIA OR DEPRESSION, OR COMORBIDITY?

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Депресијата кај деменцијата е честа во ординациите на психијатрите, но неретко како таква останува препознаена или неадекватно третирана. Имено, додека деменцијата се потврдува со типични симптоми асоцирани со когнитивното функционирање, еден од еден од првите симптоми на Алцхајмеровата, па и на други деменции е депресијата. Науката препознава некои заеднички симптоми на депресија и деменција (демотивираност, отсуство на иницијатива, слаб социјален ангажман, проблеми со концентрација, одлучувањето) што дополнително придонесува за одредени дијагностички потешкотии и следствено лош квалитет

на живот. Цели: Дијагностички предизвик во дистинкцијата на депресија или деменција (или двете) кај пациент на 61 годишна возраст со анамнеза за психијатриска дијагноза – депресија на негова 40 годишна возраст. Реактуелизација на слична симптоматологија се јавува 10 години подоцна и е рефрактерна на високи дози на антидепресивна терапија. Методи: За иследувањето беа користени следните клинички инструменти за дијагностицирање на депресија кај пациенти со деменција – Geriatric Depression Scale (GDS), Cornell Scale for Depression in Dementia (CSDD), Mini Mental Scale (MMSE). Резултати: Добиените резултати потврдуваат ран почеток на Алцхајмерова деменција каде манифестацијата на бихејвиорални, емоционални и когнитивни промени се јавува како продром на основното заболување. Заклучок: Ненавременото препознавање на деменцијата доведува до губиток на драгоценото време во иницијалната фаза на болеста, неефикасен третман и доцнење во организацијата на правилен супорт.

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ASSOCIATION OF POLYMORPHISMS IN MTHFR AND APOE GENES WITH THE VASCULAR DEMENTIA IN ISCHEMIC STROKE PATIENTS

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Introduction: The relationship of common single nucleotide polymorphisms (SNPs) in methylenetetrahydrofolate reductase (MTHFR) and apolipoprotein-E (APOE) genes with development of vascular dementia (VD) in patients with ischemic stroke (IS) are inconclusive. The aim of this study was to investigate the relationship between the two common variants of MTHFR and APOE genes with VD development in IS patients. Methods: In this case-controls study, 100 patients with IS were examined (53 controls without VD and 47 subjects that developed VD during the 2 years after the IS). The genotypic and allelic frequencies of MTHFR and APOE gene SNPs were compared between the two groups using different statistical analyses. Results: Basic demographic and clinical characteristics of patients are presented in the Table 1. Single locus analyses revealed no significant differences in the distribution of genotypes in MTHFR locus, but the frequency of homozygous APOE genotype with risk allele epsilon-4 was significantly different compared with wild-type genotype homozygous to allele epsilon-3 (Table 2). The results of two-locus combined effect analysis indicates that the carriers of risk alleles T and epsilon-4 of the MTHFR and APOE gene, respectively, has app. 3 folds higher chance to develop VD after the IS than the carriers of epsilon-3 homozygous patients (Table 3). Conclusion: The results show that APOE epsilon-4 allele, especially in individuals that carrier the MTHFR T allele, is associated with strongly increased risk of VD in patients with history of IS in the past 2 years and could be a potential biomarker for VD susceptibility.

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NEUROPSYCHOLOGICAL ASSESSMENT OF DEMENTIA AND DEPRESSION IN OLDER ADULTS

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Two of the most common psychological disorders of later life are dementia and depression. The diagnosis of these conditions presents a challenge to clinicians because the symptoms of depression and dementia often overlap; in addition, the symptoms of either of these disorders in their early

stages may be attributed to the normal effects of aging. In the psychological assessment of older adults, clinicians and practitioners have a need for a clear and practical guidance on differentiating psychological disorders from normal events in the aging process, identifying symptoms of depression and symptoms of dementia, performing differential assessment of dementia and depression, determining legal competency of older adults, providing clinical interpretations to clients and their families, and applying assessment to therapy and interventions.

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ABSTRACT THINKING AND DEMENTIA: EXERCISES TO KEEP YOUR BRAIN FIT

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The symptom most people associate with dementia is forgetfulness and loss of abstract thinking. *What Is Abstract Thinking?* Concrete thinking pertains to ideas that we can relate to using our senses. Abstract thinking involves concepts with which we don't have a physical relationship. We can't see wisdom, hear peace, touch economic reform, or smell prejudice. *What Does Loss of Abstract Thinking Look Like with Dementia?* All people don't operate with the same level of abstract thinking, so reduced abstract thinking is then relative. The best way to recognize it in others is when we know them well. Loss of abstract thinking shows up as taking things literally, not being able to draw conclusions, not being able to read between the lines, understand irony, or get a joke. *How Can We Hone Our Abstract Thinking Skills? Make up Analogies-* that can either trigger an understanding of one thing by examining its similarities with another thing or use known similarities between the two things to create a deeper meaning. *Analyze Symbols-* who are often used to represent concepts. *Jump back and forth between concrete and abstract ideas. Understanding the deeper meaning of a concept.* - Looking at modern art to figure out what the artist was attempting to depict - Thinking how everything relates to everything else or to the bigger picture.

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CASE REPORT: PATIENT WITH VASCULAR DEMENTIA.

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JZU PB Skopje CMH Centar

Retired university professor (80 years of age), married, father of two. Heteroanamnestic data reveals psychological changes since 2013 due to two previous TIA's. Patient has long standing hypertension. Within the last three years he has suffered from depression and progressive deterioration of psychologic function. Neurological assessment: Right sided central facial paresis. Discrete central paresis of right extremities. Poor sphincter control. Positive romberg, positive on the right. Posture stooped, magnetic gait. Psychiatric assessment: Conscious, disoriented. Poor verbal communication. Thought process is incoherent and labored. Affective response is labile. Cognitive function is compromised, as well as logical reasoning. Short term memory is affected and long term recall of facts. Patient's drives and instincts of self preservation and self care are significantly diminished. DG: Status post TIA- in the left carotid system. Dysphasia. Insuffic. Cerebrovascularis ischemicus (thrombosis, infarctus cerebri) Depressive syndrome. Hypertens. Art.Dementio vascularis. Clinical diagnosis vascular dementia was confirmed by CT scan and psychological testing. This individual was evaluated as unfit for legal capacity.

P-69**NEUROPSYCHOLOGICAL ASSESSMENT OF EARLY COGNITIVE DECLINE AND DEMENTIA SYMPTOMS**

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In this work the research was performed on more than 100 patients to demonstrate the priority of the early assessment, diagnostics of mild cognitive disorders and dementia in Patients. To establish to what extent the ordination of the pharmacotherapy at an early stage of the disease can help and improve the every life of the patients by ensuring them independency and higher life standard in the old ages. This study included 120 patients, ages 65 to75, of various educational and professional backgrounds. Before the treatment, patients were neuropsychological examined and according to the stage of the disease they were divided into two groups: i) early cognitive disorders and lii) moderate cognitive disorders. The pharmacotherapy was ordinated according to the type of the cognitive disorder and the patients were followed up with a second examination over a period of two years. Each time patients were psychologically and psychiatrically examined, where the evaluation of the intellectually mnesitic, cognitive and volition sphere has been done. The evaluation was based on direct expression of the examinee, verbal and non-verbal, as well as a battery for evaluation of the cognitive ability. Neuropsychological battery was used for the following cognitive tests: Intelligence Test Vitim (subtest Block Design and Vocabulary), MMSE, Test of the Clock, SKT- Short Cognitive Test.

From the obtained results it can be seen that pharmacotherapy at the early stage of the disease contributed to a significant stagnation of cognitive disorders and dementia. For the patients from group i) early cognitive disorders, even some mild cognitive improvements has been observed, although in small percentage.

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Состав: Филм-обложените таблети YMANA содржат 10 mg или 20 mg мемантин хидрохлорид. **Терапевтски индикации:** Терапија на пациенти со умерена до тешка Алцхајмерова болест. **Дозирање и начин на примена:** Таблетите мемантин треба да се земаат еднаш на ден и секогаш во исто време. Филм-обложените таблети може да се земат со или без храна. Препорачана почетна доза е 5 mg на ден, која постепено се зголемува во тек на првите 4 недели на третманот, до постигнување на препорачаната доза на одржување, на следниот начин: 1. Недела (ден 1 – 7): Пациентот треба да зема доза од 5 mg на ден во тек на 7 дена. 2. Недела (ден 8 – 14): Пациентот треба да зема доза од 10 mg на ден во тек на 7 дена. 3. Недела (ден 15 – 21): Пациентот треба да зема доза од 15 mg на ден во тек на 7 дена. Од 4. недела и понатаму: Пациентот треба да зема доза од 20 mg на ден. Максималната дневна доза е 20 mg. Препорачаната доза на одржување е 20 mg на ден. Постари пациенти: Врз основа на клиничките студии, препорачаната доза за пациенти на возраст над 65 години е 20 mg на ден. Бубрежно оштетување: Кај пациенти со лесно нарушена бубрежна функција (креатинин клиренс 50 – 80 ml/min) не се препорачува приспособување на дозата. Кај пациенти со умерено бубрежно оштетување (креатинин клиренс 30 – 49 ml/min) дневната доза треба да биде 10 mg на ден. Ако пациентот ја толерира оваа доза и по најмалку 7 дена од третманот, дозата може да се зголеми до 20 mg/ден по стандардната шема на титрација. Кај пациенти со сериозна бубрежна инсуфициенција (креатинин клиренс 5 – 29 ml/min) дневната доза треба да биде 10 mg на ден. Хепатално оштетување: Кај пациенти со лесно до умерено хепатално оштетување (Child-Pugh A и Child-Pugh B) не е потребно приспособување на дозата. Примањето на таблетите мемантин не се препорачува кај пациенти со тешко хепатално оштетување.

Контраиндикации: Преосетливост на мемантин или на која било составна компонента на лекот. **Посебни предупредувања и мерки на претпазливост:** Претпазливост е потребна кај пациенти со епилепсија, со историја на конвулзии или кај пациенти со предиспонирачки фактори за епилепсија. Треба да се избегнува истовремена примена на антагонисти на N-метил-D-аспартат (NMDA), како што се амантадин, кетамин или декстрометорфан. Овие супстанции дејствуваат на истиот рецепторски систем како и мемантин и затоа несаканите дејства (од страна на централниот нервен систем) можат да бидат почести или повеќе нагласени. Пациентите коишто имале неодамнешен инфаркт на миокард, декомпензирана конгестивна срцева инсуфициенција (NYHA III – IV) или неконтролирана хипертензија, поради ограничени достапни податоци кај овие групи, потребно е внимателно да се следат при употреба на мемантин. **Несакани дејства:** Чести: вртоглавица, главоболка, констипација, сомноленција, диспнеја, преосетливост и хипертензија. **Пакување:** Филм-обложените таблети YMANA спакувани се во алуминиумски блистер (PVC) и секој содржи по 7 таблети. Картонската кутија содржи 28 таблети (4 блистери по 7 таблети) и упатство за пациентот. **Начин на издавање:** Само со лекарски рецепт. **Носител на одобрение:** АЛКАЛОИД АД Скопје. **Број на решение:** 11-4099/4; 11-4099/6. **Датум на решение:** 14.9.2015.

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