P3-064 LOW VITAMIN B12 IN THE ELDERLY IS ASSOCIATED WITH CORTICAL COGNITIVE PROFILE INDEPENDENTLY OF HYPERHOMOCYSTEINEMIA

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Background: Vitamin B12 deficiency is relatively common among the elderly (2-20%). The alteration of cognitive functions during vitamin B12 deficiency is reported in the literature, however there is no data on neuropsychological profile. The purpose of this study was to investigate the relationship between low vitamin B12 and marker of its metabolism (homocysteine), and cognitive profiles in older patients. **Methods:** 108 old patients of a french geriatric ambulatory unit were enrolled in the study. Cognitive profiles were determined on the basis of the results in Mattis scale, RL/RI-16, Grober-Buschke items, and in the Trail Making Test. We determined plasmatic vitamin B12, vitamin B9, homocysteinemia, CRP, alpha-acid glycoprotein, cholesterol in all patients. **Results:** 81.6 % of subjects had cognitive disorders. Their mean age was 79 years old. We found 21 patients with a cortical profile, 29 with a cortico-subcortical profile, 43 with a subcortical profile, and 15 subjects were normal. Olders with vitamin B12 in the first quartile (i.e. $<$ 192.5 pmol / l) had cognitive impairment in 96.3% of cases, against 82.72% in higher quartiles. Patients with normal cognitive function had vitamin B12 lower to 192.5 pmol / l (first quartile) in 6.67% cases, versus 16.28% of patients with subcortical profiles, versus 34.48% of patients with mixed (cortical & subcortical) profile, versus 42.86% of patients with cortical profile. The multivariate analysis showed that plasmatic vitamin B12 in the lowest quartile (lower to 192.5 pmol / l) versus the highest quartiles, was significantly associated with a cortical profile (OR = 12.57, p=0.04), independently of homocysteinemia. **Conclusions:** In older adults, low vitamin B12 is associated with impairment in cortical cognitive functions, independently of homocysteine levels.

P3-065 DIFFERENT RISK OF DEMENTIA IN MILD COGNITIVE IMPAIRMENT SUBTYPES

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Background: Dementia has been a major public health problem and mild cognitive impairment (MCI) is considered the pre-dementia syndrome in recent years. **Methods:** This paper aims to evaluate if the subjects with represent a population with higher risk for dementia, to determine the existence of the different subtypes of cognitive impairment study the risk factors associated to the conversion to dementia. Design/**Methods:** 127patients with diagnosis of MCI (Winblad et al, 2004 - MCI criteria, age= 70.21; SD=13.17) were selected. All participants were evaluated systematically with a thorough cognitive and neuropsychiatric battery, clinical interview, and consensus diagnoses, and sub-typed as: amnestic: MCI (n=20), multiple-domain MCI (n=98), non-amnestic MCI (n=9). normal subjects (age = 74.59; SD.=10.63) were included in this study. **Results:** >Kaplan-Meier- and Cox survival analysis were used. During a follow-up of one year, 27,1%of patients developed dementia type Alzheimer. The average time that subjects converted to Alzheimer disease (AD) was 11.12 months (SD = 183). None of the controls rotated to dementia. 35% (n = 7) of amnestic MCI converted to AD (20% (n = 4) at 6 months and 15% (n = 3) at 12months); 11.1% (n = 1) of the single domain non-amnestic MCI converted to AD at 6 months and 31.6% (n = 31) of multiple domain MCI rotated to Alzheimer (15.3%(n = 15) at 6 months and 16.3% (n = 16) at 12 months. Advanced age ($p < .05$, ß = 1.03) and retirement ($p < .05$, ß = 2.30) increased the probability that the rotation to AD occurred earlier. **Conclusions:** MCI is a population at risk of degenerative dementia. The multidomain MCI subtype was the most frequent, followed by the amnestic subtype and finally the only non-memory domain. The conversion to dementia in amnestic subtype was higher, with the elderly and retirement variables that increased the likelihood that the DTA rotation sooner. The data presented highlight the need for medical care to recognize the existence of a "population at risk of degenerative dementia."

P3-066 PSYCHOTHERAPY AND OTHER SUPPORTIVE PROCEDURES FOR TREATING DEPRESSION AND ANXIETY IN MCI

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Background: Whether depressive disorder and anxiety predispose to later dementia is a scientific concern. Stress associated with anxiety and depression is a high risk factor for Mild Cognitive Impairment. Our study aimed to investigate the effect of psychotherapy and other supportive procedures on depression and anxiety co-morbidities in MCI patients. **Methods:** Sixty male and female MCI patients aged over 55 years referred to our Center of Memory Diseases from Bucharest were assessed with a standard set of psychometric and behavioral tests and enrolled in the study. The inclusion criterion was the presence of both depression and anxiety. We also documented all patients' education level and social status. Psychotherapy, interventions to enhance/adjust cognitive skills, counselling and coping with stress, depression and anxiety management procedures were performed during 24 individual sessions, while also maintaining their current medication. A final psychometric evaluation was done, and the resulting scores were compared with the baseline. **Results:** Cognitive training interventions proved beneficial for subjective memory complaints and emotional state in 60% patients. The preservation of practical skills and communication was registered in 62% patients; mobility preservation was noted in 68%; well being preservation was noted in 80%. Depression and anxiety symptoms were improved in 85% of MCI patients. Patients' caregivers' feedback confirmed our results. **Conclusions:** A well designed, personalized cognitive stimulation, neuropsychological rehabilitation and stress and depression management may add a crucial support to drug-based therapy in prodromal dementia.

P3-067 WHAT CAN WE LEARN ABOUT THE CONCEPT AND UNDERLYING BIOLOGY OF INTERMEDIATE COGNITION FROM THE LONGSTANDING POPULATION BASED COHORT CFAS

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Background: The intermediate cognitive state between normal age related change and dementia has been studied for over 30 years. Many definitions have been proposed, of which the most commonly applied is the Mayo Clinic definition of Amnestic Mild Cognitive Impairment (A-MCI). All such criteria, as expected, perform less well in prediction of future dementia in settings with lower prevalence such as representative population based samples. They might however vary in their ability to identify groups with particular underlying neuropathological profiles, most notably Alzheimer's pathology. This presentation explores whether, in a population setting, A-MCI is associated with a particular pathological profile when compared with the simpler cognitive stratification possible using MMSE. **Methods:** Forty three participants from the Medical Research Council Cognitive Function and Ageing Study fulfilled criteria for A-MCI. A mildly impaired group was also defined based on a MMSE cut-off score of 22-26 (n=552). ROC analysis was used to determine the diagnostic accuracy of dementia risk thresholds (e.g., low, moderate and high) derived from criteria for A-MCI and MMSE scores in predicting two year incident dementia. From the brain donor group those who fulfilled A-MCI or mildly impaired using the MMSE were compared to establish whether there were differences in neuropathological profiles. **Results:** Progression to dementia at two years was higher for individuals classified as A-MCI (13.4%) compared to the MMSE defined group (5.7%). However, the A-MCI diagnosis was associated with higher rate of reversion to normal (A-MCI 44.8% vs. MMSE 32.7%). Dementia