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15.2). B12 deficit was higher in men than in women (31.4% vs 17.9%, $p < 0.01$). An increasing risk of having deficit with age 70-79y was observed (gender adjusted OR: 3.96, 95% CI 2.82-5.57). The prevalence of Anemia was 8.2% with no association with B12 deficiency ($p = 0.43$). Conclusions: The results of this study evince a high prevalence of B12 deficiency or marginal deficit affecting 22.2% of older adults without the hematologic disorders –probably solved by folic acid fortification- that have been traditionally used as biomarkers of B12 deficiency. Whereas the deficiency of Vitamin B12 is associated with cognitive and neurologic disorders in this age group, there is a need of permanent surveillance and evaluation of nutrition interventions to correct these deficits. Supported by Fondecyt grants 1070592 and 1080589.

PB8 428 OBESITY, GLUCOSE PROFILE AND COGNITION IN A INTERDISCIPLINARY PROGRAM TO TREAT AGED WOMEN OBESITY

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Background: There is correlation between memory decline, insulin resistance and obesity owing to several distinct mechanisms. Objectives: To compare memory performance and the profile of insulin resistance in obese women over 60 years before and after intervention for obesity treatment. Methods: This clinical study was conducted with 22 women with mean age of 65.5 ± 4.0 years (mean \pm standard deviation), with body mass index (BMI) 36.92 ± 5.1 kg/m² from June to September of 2006. The intervention consisted in a monthly individual medical assessment, weekly nutritional groups, supervised physical activity twice a week (aerobic and localized exercises without the use of equipments). We compared the group before and after the intervention with memory tests (Brief Cognitive Screening Battery DR-BCSB, MMSE, Semantic Verbal Fluency and Clock Drawing Test) and the glycemic profile, insulin resistance (fasting glucose, basal insulin and HOMA IR) and their weight loss in the period. For statistical analysis we used Student T test, Pearson linear correlation, considering a 95% confidence interval and statistical significance with $p < 0.05$. Results: The participants lost 6.6 ± 3.0 % of the weight post intervention. The fasting glucose, basal insulin and HOMA IR decreased (-23.1 g/dl; -3.41 μU/mL; -1.62 and $p = 0.05$; 0.043 and 0.009 respectively) which were correlated with significant improvement in Recognition score in DR-BCSB (difference final - inicial = 0.18 and $p = 0.042$) and there was positive correlation between the immediate memory improvement and the percentage of weight loss achieved ($r = 0.539$, $p = 0.01$). Conclusion: The multidisciplinary intervention for weight loss in women over 60 years was effective in the improvement of the glycemic profile and followed by a betterment in the performance of the humour and learning. The explanation over the effect of the weight loss in the cognitive performance must be better studied.

PB8 429 ALCOHOL CONSUMPTION OF AN ELDERLY EUROPEAN POPULATION: DAILY AND WEEKLY CONSUMPTION

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Introduction: The aim of this study was to identify differences between countries on patterns of alcohol consumption per day and to study the type of meals and days of the week when alcoholic beverages are consumed. Methods and materials: This project was carried out within the European Project "Food in Later Life", under the leadership of the University of Surrey and with financial support of the 5th EU Framework Programme. 644 European citizens aged 65+ years from 8 EU countries were interviewed face-to-face; the sample was stratified by groups: sex (male/female), age (65 - 74; 75 years) and living circumstances (living alone/with others). Data was collected by 7 days food diaries. Analyse was performed using SPSS 14.0 by the Kruskal-Wallis test with post-hoc Mann-Whitney test with Bonferroni correction; and Friedman test with post-hoc Wilcoxon test with Bonferroni correction. Results: The mean average number \pm Standard Deviation (SD) of alcohol events per day were higher for Italy (0.88 ± 0.87) and lower for Poland (0.12 ± 0.22); Poland was statistically different from all other countries except from Portugal (0.68 ± 1.00); United Kingdom (0.78 ± 0.71) was statistically different from Sweden (0.36 ± 0.35) and Spain (0.41 ± 0.53). Alcohol consumption was statistically different for all type of meals (elaborate, cold and hot main or light meals). The higher differences were found between the alcohol events in hot main meals and the cold main meals, with mean values \pm SD of 1.72 ± 2.64 and 0.11 ± 0.35 , respectively. Based on similarity of number of alcohol events on the days of the week, two groups were identified based on similarity: (1) Monday to Thursday (lower) and (2) Friday to Sunday (higher), with statistical differences between them. Conclusion: Differences were found on the average number of alcoholic beverages consumed per day between countries, daily and weekly routines for its

consumption. We can conclude that alcohol consumption is a phenomenon perceived by older people as a social act that is still culturally linked.

PB8 430 NUTRITIONAL EVALUATION AND COMPARISON USING MINI NUTRITIONAL ASSESSMENT (MNA) AND BODY MASS INDEX (BMI). NOVOMET STUDY. PRELIMINARY RESULTS.

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Introduction Information about the epidemiology of undernutrition and risk of undernutrition for older Spanish citizens, particularly those living institutionalized, must be a priority for our Health System. In NOVOMET study, we evaluated as secondary objective the prevalence of malnutrition. Objective To compare MNA with other way to classify nutritional status determined by anthropometric measurements of BMI (corresponding question F-screening in MNA) (MNA-SF). Material and methods Multicenter, cross observational, descriptive, randomized, conducted in November-December 2007 in nursing home(NH) in all the autonomous regions of Spain. 45 NH participated. Criteria include: People over 65 years(N=410). Nutritional status was assessed from anthropometric variables: BMI and MNA. The distribution of variables were analyzed with the Kolmogorov-Smirnov test. Quantitative variables were analyzed with t-Student test and the qualitative test of chi-square Results Comparing the values of question F of MNA-SF (corresponding to BMI) with the total MNA scores we obtained: punctuation 0 MNA-SF matches 15.8 ± 5.3 MNA(N=65), punctuation 1 MNA-SF matches 15.5 ± 4.2 MNA(N=50), punctuation 2 MNA-SF matches 18.2 ± 3.1 MNA(N=77), punctuation 3 MNA-SF matches 21.1 ± 3.5 MNA(N=218). For all these values $p < 0.001$. If we group the scores of 0 and 1 MNA-SF 115 patients are malnourished. A total of 295 patients at risk of malnutrition (scores 2 and 3 MNA-SF) Conclusions MNA grows significantly with the increase BMI, especially if we compare malnutrition, underweight compared to normal-risk of overweight. It is necessary to make a full nutritional assessment in elderly, not sufficient anthropometrical valuation, because although there is significant correlation between BMI and MNA, many patients with adequate value in BMI, may present a risk of malnutrition.

PB8 431 OMEGA-3 POLYUNSATURATED FATTY ACIDS, APOE GENOTYPE, AND COGNITIVE FUNCTIONING IN COMMUNITY-DWELLING OLDER ADULTS

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Introduction - The omega-3 (n-3) long-chain polyunsaturated fatty acids (PUFA) eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are crucial to normal brain functioning. Evidence in human studies suggests a link between n-3 PUFA and cognition in ageing; lower plasma and erythrocyte levels of n-3 have been associated with the presence of dementia, greater risk of developing dementia, cognitive decline, and lower cognitive function in older age. However, results from such observational studies are still inconclusive. The objective is to examine relationships between erythrocyte membrane levels of n-3 PUFAs and cognitive functioning, comprehensively assessed, in a sample of cognitively-healthy (MMSE > 23) older participants. Methods and materials - Results are from the baseline data of the EPOCH (older people, omega-3, and cognitive health) trial: An 18-month parallel, randomised, double-blind, placebo-controlled trial with repeated measures every 6 months, examining the effect of fish-oil (DHA-rich) on age-related cognitive decline. Participants were 391 (46.3% male) community-dwelling adults, aged 65-90 years ($M = 73.1$, $SD = 5.5$), with a mean of 12.9 years of education ($SD = 3.8$). An extensive battery of cognitive tasks were administered to assess the following cognitive constructs; working memory, reasoning, short-term memory, long-term memory and retrieval, inhibition, processing speed and perceptual speed. Erythrocyte levels of n-3 fatty acids were measured and APOE genotype was also assessed. Results - Factor scores from confirmatory factor analytic models of the cognitive domains constitute the dependant variables used in analyses. Multiple regression was used to examine relationships between erythrocyte membrane levels of n-3 PUFA and the cognitive constructs, controlling for possible confounding factors including physical activity, smoking status, age, and years of education. Analyses were conducted for the whole sample as well as sub-samples defined by APOE genotype. Conclusion - Associations between erythrocyte levels of n-3 PUFA, cognitive functioning, and APOE genotype will be discussed.

PB8 432 ZINC STATUS AND DNA REPAIR IN ELDERLY: RELATIONSHIP WITH LIFE STYLE AND PSYCHOLOGICAL CONDITIONS

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