Methods: We studied 132 patients with diagnosis of probable AD, according validated criteria, in mild to moderate stages. Medium age was 72.4 years. Meantime elapsed from the initial symptoms was 2.4 years. A control group of 89 healthy individuals paired for age, sex and education was studied. A questionnaire looking for stressful life events in the 3 years before diagnosis of AD was performed to patients, caregivers and controls.

Results: In the AD group, 97 patients (73.5%) presented a history of significant stressful life events, 2.3 years (SD 1.4 years) before the onset of symptoms. The most common findings in the AD group were: couple death (28 cases), son's death (17 cases), history of assault or violent theft (25 cases), and history of car accident without severe injuries (13 cases). Other stressful situations were marked financial problems, bereavement, retirement, adaptive changes due to migrations and diagnosis of severe somatic disease in the family. In the control group, only 24 individuals (27%) recognized similar previous stress factors in the previous 3 years

Conclusions: We observed an association between stressful life events preceding the onset of dementia in a high percentage of our patients. Stress could trigger the degenerative process in AD and growing evidences suggest a dysfunction in neuroendocrine and immune system. According our results, we can establish a relationship between several stressful life events and the onset of dementia. It is an observational finding and does not imply direct causality. Future studies are required to examine this association in more detail in order to explain the possible mechanisms of this relationship.

Poster Session 2:

P1: Clinical value of plasma soluble TREM2 in identifying mild cognitive impairment: A community-based study of the Chinese elderly

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Objectives: To clarify that correlation in plasma soluble TREM2 (sTREM2) and cognitive function between mild cognitive impairment (MCI) and normal cognitive function in a Chinese community population, and further to explore whether plasma sTREM2 can be used as a blood biomarker to predict and identify MCI.

Methods: This study included 216 community elderly people in Shijiazhuang and Xingtai City, Hebei Province, including 106 MCI and 110 normal cognitive function (NC) subjects. The Montreal cognitive assessment (MoCA) was used, mini mental state examination (MMSE), Boston naming test (BNT), digit span test (DST) to evaluate the cognitive functions of all subjects. Fasting venous blood was collected at the same time, and ELISA was used to detect Aβ42, Aβ40, P-Tau217, P-Tau231, TREM2, sTREM2 concentration. Use software based on SPSS26.0 to analyze the data.

Results: 1. The level of sTREM2 in the MCI group was higher than that in NC group, and the difference was statistically significant (H = 4312.0, P = 0.001). There was no statistical significance in the difference of the other index between two groups (P > 0.05). 2.Correlation analysis showed that sTREM2 was negatively correlated with P-tau217, education level, MMSE, MoCA, BNT, and DST (P < 0.05). TREM2 was positively correlated with P-tau217 and Aβ42 (P < 0.05). 3. Incorporate whether it was MCI as the dependent variable, gender, age, education level, living

style, and the above blood indicators as independent variables in binary logistic regression analysis. The results showed that sTREM2 was a risk factor for MCI (OR = 1.009, 95%CI = 1.002– 1.016, P = 0.015), junior high school education or above was a protective factor for MCI (OR = 6.133, 95 % CI = 2.651–14.189, P < 0.001). 4.The area under the ROC curve of sTREM2 was 0.630 (sensitivity 0.472, specificity 0.782), and the area under the ROC curve of sTREM2 combined with MMSE was 0.849 (sensitivity 0.679, specificity 0.873).

Conclusions: sTREM2 is a risk factor for cognitive function decline in MCI. Plasma sTREM2 levels combined with the cognitive function assessment scale have good clinical value in identifying mild cognitive impairment.

Keywords: sTREM2, Mild Cognitive Impairment, Plasma

P2: Clinical Improvement Analysis using Montgomery-Åsberg Depression Rating Scale (MADRS) for Outpatient Elderly using Antidepressant Medication in Cipto Mangunkusumo National General Referral Hospital

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Background: Clinical outcome is one of the indicators for treatment effect in specific populations such as the elderly. Depression is manifested as the result of biological, psychological, and social factors which are interrelated in the symptoms of low mood, energy, and motivation. In specific population of elderly, depression is related to the issue of loneliness and may impact the quality of life, as well as the progression of other medical comorbidities. Therefore, it is important to monitor the progress of treatment among the elderly.

Objectives: The Objectives of this study is to observe clinical improvement of depressive symptoms through the Montgomery-Åsberg Depression Rating Scale (MADRS).

Methods: This is an observational cohort study conducted in the outpatient clinic setting. The data was collected after one month of follow-up. Each patient was assessed using the MADRS questionnaire in every clinical encounter. The MADRS scores were analysed statistically using descriptive and dependent variable analysis.

Results: We collected 304 data of patients using MADRS as part of the clinical measurement. The average age is 69.98±6.6 years old. From gender distribution, 57.6% are female and 42.4% are male. From one-month follow-up, 37.8% of patients showed improvement of MADRS score and 39.1% remains the same from the previous visit. Statistical analysis showed significant change of MADRS score after follow-up, indicating the importance of routine visit and monitoring for elderly showing symptoms of depression.

Conclusions: Psychometric evaluation is an essential component for observing the clinical improvement for elderly with symptoms of depression.

Keywords: clinical, depression, elderly, inpatient