

P02-290 - **OXIDATIVE STRESS IN PATIENTS WITH MILD COGNITIVE IMPAIRMENT AND DEPRESSION COULD BE AN IMPORTANT RISK FACTOR FOR DEMENTIA**

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**Introduction:** Mild Cognitive Impairment (MCI) seems to represent an early stage of Alzheimer's disease (AD) and there is a great interest in the relationship between MCI and the progression to AD.

It has been demonstrated that patients with depression and mild cognitive impairment present a doubled risk of developing dementia of Alzheimer type as those with MCI only. Considering the importance of oxidative stress in MCI and Alzheimer disease, our current objective was to determine the level of oxidative stress in MCI patients with depression, compared with non-depressed MCI patients.

**Methods:** The patients were selected using Petersen criteria for mild cognitive impairment. The cognitive performance was assessed using MMSE (Mini Mental State Examination) and ADAS-cog (Alzheimer's disease Assessment Scale- cognitive subscale) and Geriatric Depression Scale for depression.

We assessed the levels of some enzymatic antioxidant defences like superoxide dismutase (SOD) and glutathione peroxidase (GPX), as well as lipid oxidation makers like MDA (malondialdehyde), from the patients peripheral blood.

The results were compared to an aged-matched non-depressed MCI group.

**Results:** A significant decrease in the specific activity of both superoxide dismutase and glutathione peroxidase was found in MCI patients with depression compared with non-depressed MCI patients. Also, the concentration of serum malondialdehyde was increase in MCI patients with depression.

**Conclusions:** We conclude that patients with MCI and depression have an increased level of oxidative stress, compared with non depressed MCI patients. This could explain the increased risk of patients with depression and mild cognitive impairment in developing dementia of Alzheimer type.