

## P-775 - CHANGES OF SERUM FATTY ACID COMPOSITION IN GERIATRIC DEPRESSION

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**Introduction:** Fatty acids (FA) - mainly polyunsaturated of omega 3 or omega 6 typus- may influence a wide range of psychic processes. In major depression, deficiencies of polyunsaturated FA (PUFA) have already been reported. Though the prevalence of depression in elderly persons ranges up to 18%, especially serum FA profiles of seniors have not yet been investigated.

**Objectives:** The present study aims to compare FA profiles of geriatric patients with depression and without clinical manifestation of neurodegenerative disorders on the one hand, and of mentally healthy elderly controls on the other hand.

**Methods:** Serum FA compositions were determined in 37 mentally healthy individuals (13 men, 24 women;  $68.08 \pm 4.94$  years old) and in 36 patients with geriatric depression (8 men, 28 women;  $72.67 \pm 6.48$  years old). The Body-mass index (BMI) was calculated for all study participants. Geriatric depression was diagnosed according to DSM-IV criteria for unipolar major depression (HAM depression score of patients was  $18.13 \pm 6.56$ ).

**Results:** Geriatric depressive patients had lower total FAs ( $p < .01$ ), mainly lower eicosapentaenoic acid ( $p < .01$ ) but higher proportions of oleic acid ( $p < .01$ ) in serum than control persons. BMI did not differ between both groups.

**Conclusions:** In geriatric depression besides a lowering of total FAs, a decrease of eicosapentaenoic acid (omega 3) and an excess of oleic acid (monounsaturated) were detected. In further studies should be investigated, if these shifts observed in FA composition could be a useful instrument in distinguishing between geriatric depression and brain degenerative diseases.