

Poster presentation

## Increased plasma levels of 8-Iso-PGF2 $\alpha$ in an elderly Greek population with cognitive impairment

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### Background

Oxidative damage has been suggested to play a role in dementia [1,2]. The purpose of the study was to investigate possible implications of lipid peroxidation in cognitive impairment by determining the levels of plasma 8-iso-PGF2 $\alpha$  in elderly individuals with dementia.

### Materials and methods

37 subjects over 60 years of age with dementia and 33 matched controls were randomly selected from a population in the community after screening with the MMSE and application of the diagnostic criteria of the DSM-IV. Plasma concentrations of 8-iso-PGF2 $\alpha$  were measured in both groups.

### Results

Demented individuals had significantly higher mean ( $\pm$ SD) 8-iso-PGF2 $\alpha$  levels compared to healthy controls (237.44  $\pm$  187.44 pg/ml vs 97.64  $\pm$  42.72 pg/ml, respectively,  $p < 0.05$ ).

### Conclusions

This study indicates an association between increased levels of plasma 8-iso-PGF2 $\alpha$  and cognitive impairment in the elderly and indicates the necessity for further investigation of oxidative stress and lipid peroxidation in dementia, rendering isoprostanes as plausible biochemical markers of the disease in peripheral blood.

### References

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