

Relationship between myeloperoxidase and metabolic syndrome at older patients

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OBJECTIVES

The study has proposed to evaluate the levels of serum myeloperoxidase in a group of older patients with metabolic syndrome compared to a group of control subjects.

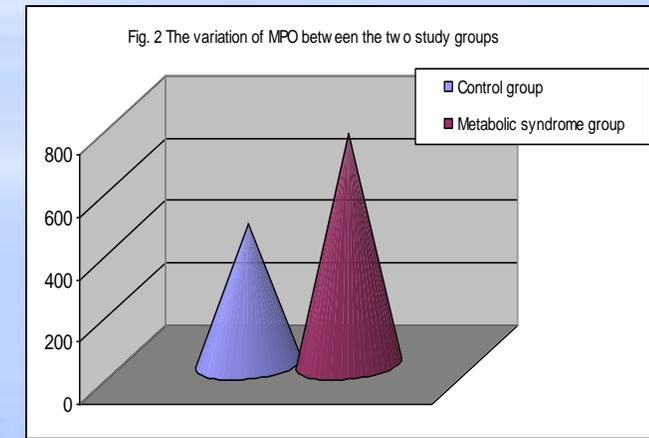
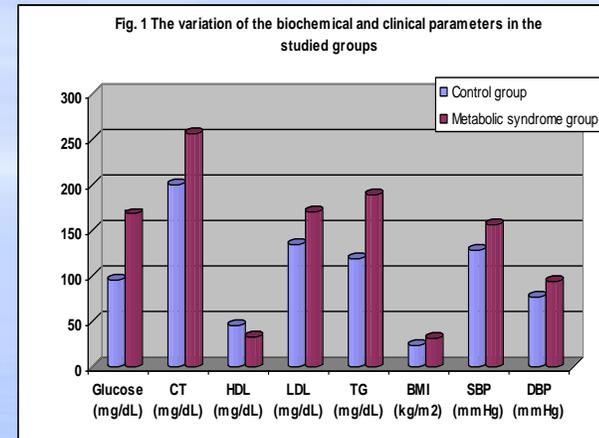
MATERIALS AND METHODS

Studies were carried out in 79 patients (men and women) aged 69.73 ± 7.14 years, divided in two study groups: a control group (n = 41) and a metabolic syndrome group (n = 38).

Serum determinations of biochemical parameters were performed by laboratory tests using standardized methods. MPO levels were determined in serum by immunoenzymatic assay and spectrophotometric detection at 450 nm.

RESULTS

- significant differences between the two study groups for the determined clinical and biochemical parameters (Fig.1).
- high levels in serum MPO level at patients with metabolic syndrome compared to control group ($p < 0.001$) (Fig.2).



DISCUSSIONS

Myeloperoxidase (MPO) is the most abundant protein in human neutrophils, being involved in the pathogenesis of various diseases, implicitly also in the metabolic syndrome (MetS).

The MetS is a serious health condition characterized by a group of metabolic risk factors (central obesity, high blood pressure, high fasting glucose, and dyslipidemia) responsible for the onset and development of cardiovascular disease and diabetes.

CONCLUSIONS

Our results suggest that MPO is a pro-inflammatory enzyme, which plays an important role in the initiation and progression of acute and chronic inflammatory diseases, suggesting a correlation between activation of MPO and metabolic disorders in MetS patients.