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Association of metabolic syndrome with testosterone and inflammation in men

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Abstract

Objective

There is limited data on the assessment of relationship between sex hormones, metabolic syndrome (MS) and inflammation. Therefore, our objective was to examine the relationship between metabolic syndrome, testosterone and inflammation.

Patients and methods

It was a cross-sectional study which included 309 subjects in the age range of 30–70 years. Blood was analyzed for plasma glucose, serum lipids, total testosterone (TT) and high-sensitivity C-reactive protein (hs-CRP).

Results

There were 153 patients with metabolic syndrome and 156 without MS according to modified NCEP guidelines. Age, BMI, obesity, dyslipidaemia, smoking (OR = 2.35, CI = 1.35–4.09), LDL-Ch, low TT (OR = 0.76, CI = 0.38–1.52) and elevated hs-CRP (OR = 1.56, CI = 0.87–2.80) were significant independent predictors of MS (all $P < 0.05$).

Conclusions

The low testosterone and high hs-CRP levels are independent predictors of metabolic syndrome.

Keywords: Metabolic syndrome; Testosterone; Inflammation; Men