Garci¡a-Cruz E, Cadeosa O, Piqueras M, Luque P, Alcaraz A.

Metabolic syndrome comorbidity in a cohort of 1094 men with low testosterone levels.

Abstract: Objective: To determine the prevalence and risk factors for Metabolic Syndrome (MS) in a cohort of men with low testosterone (T) levels. Methods: A multi-centre, cross-sectional study recruited 1094 consecutive men older than 45 years old with low T levels (<12 nmol/L). Alcohol intake and tobacco use were recorded. Obesity was defined as Body Mass Index >30 kg/m2. History of heart disease, peripheral vascular disease and other relevant entities were prospectively recorded. Metabolic Syndrome was defined as 3 or more of the following: abdominal obesity ΓëÑ94 cm, triglycerides ΓëÑ150 mg/dl, Hypertension ΓëÑ130/85 mmHg, HDL-cholesterol < 40 mg/dL or Fasting Glucose ΓëÑ100 mg/dl. AMSS questionnaire and IIEF were used to record low T symptoms and erectile function. Testosterone and SHBG were determined in blood sampling between 7 h00 AM and 11 h00 AM. Free and bioavailable T were calculated using Vermeulen's formula. Multivariate analysis was carried out to determine the variables related to the presence of MS. P < 0,05 was considered statistically significant. Results: Mean age was 61,2 -¦ 8,1 years old. Hypertension 85%; Diabetes Mellitus 58,1%; HDL-Cholesterol <40 ng/dL 20,6%; Triglycerides ΓëÑ150 mg/dl 55,1% and Waist circumference ΓëÑ94 cm 81,1%. MS (3 or more factors) 69% (0 factors 2,1%; 1 factor 8,4%; 2 factors 20,5%; 3 factors 33,5%; 4 factors 27,4% and 5 factors 8%). Factors related to the presence of MS were AMSS (OR 1,018 p = 0,021), obesity (OR 2,406; p < 0,001), IIEF score (OR 0,936; p < 0,001), alcohol intake (OR 1,618; p = 0,002) and peripheral vascular disease (OR 2,006; p = 0,049). Conclusion: In a cohort of men with low T levels, the rates of hypertension, oral glucose intolerance, high triglycerides, low HDLcholesterol and high waist circumference, and thus MS, are high