Metabolic syndrome among obese patients attending the medical clinics of the three teaching hospitals at Sana’a City, Yemen

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Abstract

Background: Yemen faces major challenges in improving the health status of its population as it is entering an epidemiological transition with rising noncommunicable diseases e.g. obesity, diabetes and cardiovascular diseases (CVDs). We designed this study to find out the prevalence of Metabolic Syndrome (MS) and its components among obese Yemeni patients.

Methods: All obese (waist circumference >102 cm in male and >88 cm in female) attending the outpatients medical clinics at the three teaching hospitals in Sana'a city, were examined and their blood pressure (BP), fasting samples of plasma glucose, triglycerides, and HDL cholesterol were measured. The prevalence of MS obtained based on the Adult Treatment Panel III and presence of at least 3 of the following: systolic BP ≥130 mm Hg and/or diastolic BP ≥ 85 mm Hg or on treatment for high BP, fasting glucose ≥110 mg/dl or on diabetes treatment, triglycerides ≥150 mg/dl, and HDL cholesterol <40 mg/dl in men and <50 mg/dl in women.

Results: 200 obese were identified during study period with an overall MS prevalence of 46%. The metabolic co-morbidities were raised BP (68%), high triglycerides (66%), reduced high density lipoprotein (64%), and raised fasting blood glucose (40%).

Conclusion: Prevalence of MS is high among obese Yemeni patients and high BP was the commonest co-morbidity. These findings highlight an urgent need to develop strategies for prevention, detection, and treatment of MS that could contribute to decreasing the rising incidence of CVD and diabetes.