Association of Metabolic Syndrome and Benign Prostatic Hyperplasia in Chinese Patients of Different Age Decades

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Urol Int 2014; 93: 10-16.

OBJECTIVES: To evaluate the relationship between metabolic syndrome (MetS) and annual prostate growth rates in Chinese patients of different age decades with benign prostatic hyperplasia (BPH).

METHODS: We retrospectively analyzed the clinical data obtained from 1,052 Chinese men with BPH. Overnight fasting venous blood specimens were collected and serum levels of prostate-specific antigen, fasting blood glucose, high-density lipoprotein cholesterol, total cholesterol and triglyceride were recorded. We divided age into four groups: 50 ≤ age ≤ 60, 60 < age ≤ 70, 70 < age ≤ 80 and 80 < age ≤ 90. Pearson’s correlation coefficient was used to test the linearity of the relationships between each of the MetS components and prostate volume and annual prostate growth rates generally and in different age decades.

RESULTS: The median total prostate volume (69.01 ml) and median annual prostate growth rate (1.92 ml/year) were significantly higher in the MetS group compared with the non-MetS group (57.26 ml and 1.23 ml/year). Significant positive correlations were also found in total prostate volume and different age decades, while negative correlations were seen in annual prostate growth rate and different age decades.

CONCLUSIONS: MetS is associated with an increased risk of total volume and annual prostate growth rate in BPH patients of different age decades.