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THE CORRELATION BETWEEN METABOLIC MARKERS AND LOWER URINARY TRACT SYMPTOMS IN MIDDLE AGED WOMEN

Hypothesis / aims of study

Metabolic syndrome (MS), a metabolic disorder characterized by insulin resistance with compensatory hyperinsulinemia, encompasses components of central obesity, hypertension, dyslipidemia and glucose intolerance. Novel biologic markers were correlated with Mets in recent reports, such as adiposity and other body compositions. Some studies connected the association between MS and male LUTS, but the evidence about correlation between MS components/body compositions with LUTS for middle-aged women is scarce.

We conduct a prospective study and utilize a regression model with MS components as potential predictors, to investigate the correlation between MS components and IPSS for middle-aged women receiving health check-up

Study design, materials and methods

Around 973 subjects with complete assessment were enrolled. Participant demographics and health history, as well as international prostate symptoms score (IPSS) were collected by a self- administered questionnaire. Moderate to severe LUTS (MLUTS) was defined as IPSS more than 7. Non-MLUTS group was defined as control group. Multiple regression was used to analyze the correlations between LUTS and all potential predictors.

Results

Demographically, the prevalence of MLUTS is 24 percent. The MLUTS group had significantly higher mean age and body heights. Compared to control group, MLUTS group had higher percent body fat, BMI and raised waist circumference (WC) (All $P< 0.05$). For total subjects, age (adjusted OR=1.50, 95%CI 1.05-2.15), raised BMI(adjusted OR=1.65, 95%CI 1.02-2.67) were independent predictors for MLUTS group.

Interpretation of results

Increased sympathetic nervous system activity and inflammation were two main effects due to Insulin resistance with secondary hyperinsulinemia, which are associated with more severe LUTS. In the present study, older age and raised BMI were two independent metabolic predictor for middle aged women with MLUTS, and the genetic, hormonal or nutritional factors may account for the connection between body adiposity and MLUTS.

Concluding message

In the present study, we confirmed that older age and raised BMI were associated with MLUTS among metabolic markers.

Disclosures

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