

## METABOLIC SYNDROME IN FEMALE LOWER URINARY TRACT SYMPTOMS

### Hypothesis / aims of study

Increasing evidence from clinical and epidemiological studies has shown associations between lower urinary tract symptoms (LUTS) and major chronic illnesses, such as heart disease and diabetes. Reports show significant correlation between markers of metabolic syndrome and LUTS in men. However, metabolic syndrome also takes major clinical concern in women. Besides, population of incontinence and/or OAB is not small in aged women.

We attempted to examine the correlation between metabolic syndrome and lower urinary tract symptoms, overactive bladder in particular in female.

### Study design, materials and methods

A total of 384 female patients participating in a health examination underwent completed the International Prostate Symptoms Score (IPSS) questionnaire and the Overactive Bladder Questionnaire Short Form (OABq-SF) symptom bother scale. Metabolic syndrome was defined by using the National Cholesterol Education Program Adult Treatment Panel III criteria announced in 2001. We analyzed differences in lower urinary tract symptoms in accordance with distinctions of according to the presence of metabolic syndrome and constitutional the component elements of metabolic syndrome.

### Results

Mean age was 49.7±5.1 years old. Among all patients, the number of patients with metabolic syndrome was 33 females (8.6%). Depending on the presence or absence of metabolic syndrome, the IPSS and OABq-SF scores showed significant differences ( $p<0.05$ ). Among various factors, age, HDL cholesterol, and triglyceride showed significant correlation with LUTS consisting OAB.

### Interpretation of results

Metabolic syndrome correlated with LUTS in women.

### Concluding message

Certain factors of metabolic syndrome have significant correlations in LUTS in women. Although aging is the well-known risk factor in OAB, this study supports that presence of metabolic syndrome would be the significant risk factor in female OAB. More and larger well-designed studies on the effects of metabolic syndrome in managing OAB in female should be required. Meanwhile, early detection and proper management of metabolic syndrome not only managing symptoms of OAB will provide better clinical outcomes.

### References

1. Metabolic syndrome in female patients with overactive bladder. *Urology*. 2012;79(1):72-5.
2. Sensory dysfunction of bladder mucosa and bladder oversensitivity in a rat model of metabolic syndrome. *PLoS One*. 2012;7(9):e45578.
3. Evaluation of factors influencing the natural history of nocturia in elderly subjects: results of the Fujiwara-kyo Study. *J Urol*. 2013;189(3):980-6.

### Disclosures

**Funding:** none **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** retrospective chart review **Helsinki:** Yes **Informed Consent:** No