

#20026 **Correlations between metabolic syndromes related factors and urethral resistance in female functional bladder outlet obstruction**

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Introduction

Hypothesis

- Metabolic syndromes are contributing as significant risk factors developing lower urinary tract symptoms (LUTS).
- Our previous studies has supported that some factors of metabolic syndromes showed significant correlations with symptoms of overactive bladder (OAB) in females.
- More evidences are supporting that metabolic syndrome may alter neuromuscular functions by affecting tissue oxygenation and neurotransmission.

Aim of Study

we aimed to investigate the correlation among factors contributing metabolic syndromes and female functional bladder outlet obstruction (FBOO)

Methods

<Subjects>

- Female patients with LUTS who had been diagnosed as FBOO
- All of them had confirmed not having anatomical bladder outlet obstruction(BOO) on cystoscopy and high urethral resistance appearing as Pdet Qmax > 60cmH2O, Qmax <15mls/sec on the pressure flow studies.

<Control>

-Healthy females without LUTS with normal urinalysis results were enrolled as control group.

<Data & Analysis>

Data of fasting blood sugar (FBS), diastolic/systolic blood pressure (BP), serum triglyceride (TG), and serum total cholesterol levels, heart rate, body mass index(BMI), and medical histories were retrospectively analyzed using logistic regression analysis.

Results

Data of 64 FBOO patients and 105 healthy control females were analyzed. Age, presence of diabetes (DM), systolic BP, and heart rate showed significant correlations with presence of FBOO (Table 1).

Table 1. Logistic regression analysis of metabolic syndrome factors in FBOO and control.

	FBOO	Control	P value	Odds ratio
No	60	105		
Age(yrs)			0.015	1.072
mean±SD	49.9±14.1	45.9±6.8		
range	22 - 77	35 - 67		
DM	4(6.3)	1(0.9)	0.038	21.627
HTN	7(10.9)	7(6.6)	0.647	
BP(mmHg)				
Systolic	119.4±13.5	116.2±14.4	0.025	0.933
Diastolic	73.7±11.5	69.5±10.3	0.070	
HR(/min)	82.3±14.2	65.8±9.5	<0.001	1.132
Glucose(mg/dl)	102.9±17.6	86.5±9.5	<0.001	1.103
TG(mg/dl)	127.4±83.9	84.4±43.8	0.058	
BMI(kg/m ²)	22.5±2.9	22.1±2.6	0.158	

- Significantly higher heart rates in FBOO patients suggests that LUTS and control of sympathetic tone closely interact each other.
- Significant correlation of consisting diseases or factors of metabolic syndromes and urethral resistance in pressure flow studies also suggest that metabolic syndromes contribute to develop or aggravate bladder and urethral function.

Conclusions

This study suggests that contributing factors of metabolic syndrome affect urethral function in FBOO. Clinical management of metabolic syndrome as one of risk factors in FBOO should be concerned.

References

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