

THE ASSOCIATION BETWEEN LOWER URINARY TRACT SYMPTOMS AND VASCULAR RISK FACTORS IN AGING WOMEN

Hypothesis / aims of study

The aim of this study was to investigate the relationship between lower urinary tract symptoms (LUTS) and vascular risk factors (VRF) in a population-based cohort study, Hallym Aging Study (HAS).

Study design, materials and methods

Of 1,520 participants in HAS, 327 women aged ≥ 45 years, who underwent detailed health evaluations, including health-related questionnaires, evaluations of medical history and various life style factors and clinical measurements were included. VRF used in the present study included current tobacco use, hypertension, hyperlipidemia, diabetes mellitus and were assessed by medical history and clinical measurement. LUTS was assessed by validated questionnaires, the International Prostate Symptom Score (IPSS) and the relationship between LUTS and VRF was investigated.

Results

Of the 327 women, 210 (64.2%) had one or more VRF and 213 (65.1%) had moderate/severe LUTS (IPSS >7). There was significant correlation between the IPSS and the number of VRF (age adjusted $r=0.237$, $p<0.05$). The IPSS was similar in those with no (8.2 ± 7.3) and one or two (9.4 ± 5.2) VRF, but increased by 27% to 13.8 ± 8.5 ($p<0.05$) in those with three or more VRF. The multivariate logistic regression analysis, controlling for age showed that women with three or more VRF were 3 times more likely to have moderate/severe LUTS than women without VRF (Table, $p<0.05$).

Interpretation of results

The presence of vascular risk factors was strongly related to those of LUTS in aging women and the relationship between LUTS and vascular risk factors is independent of age.

Concluding message

Women with risk factors for vascular disease are more likely to have moderate/severe LUTS and these finding suggest that vascular risk factors play a role for the development of LUTS.

Table. Multiple logistic regression result for relative risk of moderate/severe LUTS by age and number of vascular risk factors

		Moderate/severe LUTS Odds ratio (95% confidence interval)	p-value
	No VRF	1	
VRF	1-2 VRF	1.12 (0.58-2.12)	0.349
	≥ 3	2.31 (1.15-3.28)	0.021
Age		1.17 (1.12-1.27)	0.003

LUTS: lower urinary tract symptoms, VRF: vascular risk factor

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Hallym University Ethics Committee **Helsinki:** Yes **Informed Consent:** Yes