



EPIDEMIOLOGY OF LOWER URINARY TRACT SYMPTOMS AMONG A SRI LANKAN POPULATION.

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ABSTRACT

Introduction: Lower urinary tract symptoms (LUTS) are major clinical problem seen among elderly people.

Materials and Methods: This was a descriptive study conducted among patients with lower urinary tract symptoms at surgical clinic, Teaching hospital, Peradeniya. Interview based questionnaire was performed with 1912 patients to assess their symptoms associated. Questionnaire was based on the epidemiology of the patients.

Results: In total, 1912 respondents (mean: 62.15 ± 13.335 years) reported a certain degree of LUTS. Among respondents with LUTS, 39.17% had mild symptoms, 32.68% had moderate symptoms, and 28.13% experience severe symptoms. Lower urinary tract symptoms are more common in males over the age of 44 years old.

Conclusions: Majority of the respondents with LUTS had mild symptoms and LUTS are more common in males over the age of 44 years old and are likely to increase with an aging population.

KEYWORDS: Lower urinary tract symptoms, International Prostate Symptom Score, Epidemiology, Sri Lanka.

INTRODUCTION

Lower urinary tract symptoms (LUTS) are major clinical problem seen among elderly (more prevalent among men). The prevalence of LUTS has been drastically increased over past decades due to the aging population and the increased lifespan. Symptoms that involve dysfunctional urinary voiding are referred as Lower urinary tract symptoms, they can be categorized as storage (irritative) symptoms (urinary frequency, urgency, dysuria and nocturia) and voiding (obstructive) symptoms (hesitancy, poor stream, post-void dribbling, overflow incontinence).^[1]

Factors like sex, age, occupation, other medical and surgical disease conditions, genetics, diet and lifestyle may play a major role in the prevalence of LUTS. Both males and females of all ages can have LUTS of varying degrees of severity, which could directly or indirectly affect their Quality of Life and the socio-economic prospect.^[2]

Among males, Benign prostatic hyperplasia (BPH) has been identified as one of the most common diseases which can lead to lower urinary tract symptoms.^[3] LUTS has also been associated with many systemic factors such as metabolic syndrome, diabetes and cardiovascular diseases related to various lifestyle factors.^[1]

MATERIALS AND METHODS

Methodology

This was a descriptive study conducted among patients with lower urinary tract symptoms at surgical clinic, Teaching hospital, Peradeniya. Interview based questionnaire was performed with 1912 patients to assess their symptoms associated. Questionnaire was based on the epidemiology of the patients.

Statistical analysis

Correlation was performed to discover whether there is a relationship between variables. Statistical significance at $p < 0.05$ was accepted for all analysis. Data was analysed using Statistical Package for the Social Sciences (SPSS) version 20.

RESULTS AND DISCUSSION

In total, 1912 respondents (mean: 62.15 ± 13.335 years) reported a certain degree of LUTS. Among respondents with LUTS, 39.17% had mild symptoms, 32.68% had moderate symptoms, and 28.13% experience severe symptoms.

Table 1: Characteristics of the study sample.

Characteristics		Percentage (%)
Gender	Male	91.3
	Female	8.7
Ethnicity	Sinhala	90.4
	Tamil	2.8
	Muslim	5.7
Occupation	White collar job	39.2
	Blue collar job	60.8
Smokers		23.04
Alcohol consumers	Current	24.47
	Occasional	17.19
Comorbidities	Diabetes mellitus	25.81
	Hypertension	36.04
Body Mass Index	24.35±4.34 kgm ⁻²	

Epidemiological data of previous studies has shown a favorable relationship between healthy eating habits and regular physical activity level and a lower risk for LUTS or progression of LUTS.^[1]

In our study, there was a significant difference of the severity of symptoms of LUTS between group of white collar and blue collar jobs ($p = 0.011$). Based on literature, women in the workforce commonly experience urinary incontinence and LUTS, and modify their behaviors to manage their symptoms. Current literature limits the ability to compare rates of LUTS by occupation among working women, especially in homogeneous high-risk groups, such as elementary school teachers and specific types of nurses.^[4,5,6]

Table 2: Relationship between Age and total IPSS.

		Total score	Age
Total score	Pearson Correlation	1	0.110
	Sig. (2-tailed)		0.001
	N	1788	1765
Age	Pearson Correlation	0.110	1
	Sig. (2-tailed)	0.001	
	N	1765	1887

Table 2 shows a positive correlation between age and total IPSS.

A large population study of three countries (United States, United Kingdom and Sweden), LUTS are highly prevalent among men and women aged >40 years. In general, LUTS experienced 'often' or more are bothersome to most people.^[7] Lower urinary tract symptoms are more common in males over the age of 44 years old and are likely to increase with an aging population.

Many epidemiologic studies have been conducted on the prevalence of LUTS, but the definition of LUTS varied from study to study.^[8,9,10] In future studies, quality of life

and health care cost should be emphasized for optimal management approaches to LUTS.

CONCLUSIONS

Majority of the respondents with LUTS had mild symptoms and LUTS are more common in males over the age of 44 years old and are likely to increase with an aging population. Furthermore there was a significant difference of the severity of symptoms of LUTS between group of white collar and blue collar jobs. New studies should be done over large sample in different cultural and different geographical areas.

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