

Determine the Severity of Lower Urinary Tract Symptoms in Middle Aged and Elderly men and Assess the Impact of Lower Urinary Tract Symptoms on Quality of Life according to Severity

Omar Quddus Khan¹, Muhammad Asif², Muhammad Nasir Jamil¹

ABSTRACT

Objective: To examine the severity of lower urinary tract symptoms in men with elderly and middle ages and also determine the effect of lower urinary tract symptoms on patients quality of life.

Study Design: Observational / Cross sectional study.

Place and Duration of Study: This study was conducted at the Department of Urology, Ayub Medical Teaching Institute Abbottabad from January 2018 to June 2018.

Materials and Methods: One hundred and eighty patients with lower urinary tract symptoms with ages 35 to 80 years were included. Patients demographic including age, residence, occupation, education and socio-economic status were recorded. Patients with severe urinary tract infection, bladder cancer, age below 35 years were excluded. Severity of lower urinary tract symptoms were examined by IPSS and bother score. Impact of lower urinary tract symptoms severity on quality of life was examined.

Results: There were 110 (61.11%) patients were ages 40 to 60 years while 70 (38.89%) patients were ages above 60 years. Majority of patients had urban residency 66.67%. From 110 patients with ages <60 years, 50 (45.45%) had mild symptomatic IPSS score, 42 (38.18%) had moderate symptoms and 18 (16.36%) had severe symptoms. In patients with ages above 60, 20 (28.57%) had mild, 28 (40%) had moderate and 22 (31.43%) had severe symptoms. Very good, good and poor quality of life was associated with mild lower urinary tract symptoms, moderate lower urinary tract symptom was significantly associated with poor quality of life and severe symptoms was significantly associated with good, poor & worst quality of life ($p < 0.05$). Patients with ages above 60 yrs had high IPSS score p -value < 0.05 .

Conclusion: Severity of lower urinary tract symptoms is significantly associated with quality of life of patients. Patients with elderly ages had high rate of severe symptoms with poor quality of life.

Key Words: Lower urinary tract symptoms (LUTS), Severity, IPSS, Quality of life (QoL)

Citation of articles: Khan OQ, Asif M, Jamil MN. Determine the Severity of Lower Urinary Tract Symptoms in Middle Aged and Elderly men and Assess the Impact of Lower Urinary Tract Symptoms on Quality of Life according to Severity. Med Forum 2019;30(7):22-25.

INTRODUCTION

Lower urinary tract symptoms are the most frequent disorder in all over the world. According to the International Continence Society (ICS) lower urinary tract symptoms were classifies into three groups storage, voiding and post-micturition.¹ Many of studies

reported that lower urinary tract symptoms are usually effects the patients with adult ages.²⁻⁴ The incidence rate of LUTS shows difference in different studies in which some of studies reported that voiding symptoms are commonly found in men that females and storage symptoms commonly found in females than males and overall incidence rate is similar in both genders.^{2,3}

Many of previous studies illustrated that age is a most common factor that involves direct impact on patient's quality of life. Patients with increase age had a high risk of poor quality of life.⁴

According to the studies conducted in Europe and Korea, demonstrated that two-third of lower urinary tract symptoms are found in patients with middle aged. However several studies reported that prevalence of LUTS is high in elderly aged patients with highly impairment of quality of life.⁵⁻¹⁰

¹. Department of Urology, Ayub Medical Teaching Institute Abbottabad.

². Department of Urology, Lady Reading Hospital Peshawar.

Correspondence: Dr. Muhammad Asif, Assistant Professor of Urology, Lady Reading Hospital Peshawar.

Contact No: 03359935313

Email: drasif_15@yahoo.com

Received: January, 2019

Accepted: April, 2019

Printed: July, 2019

In male population there is a high prevalence of LUTS either in elderly or middle aged and there is no significant difference regarding quality of life.^{11,12}

The present study was conducted aimed to examine the severity of LUTS among middle aged and elderly aged patients, also determine the impact of LUTS on patient's Quality of Life.

MATERIALS AND METHODS

Present study was conducted at Department of Urology, Ayub Medical Teaching Institute Abbottabad from 1st January 2018 to 30th June 2018. A total of 180 patients with lower urinary tract symptoms with ages 35 to 80 years were included. Patients demographic including age, residence, education, socio-economic status and comorbidities were recorded after taking informed written consent. Patients with severe urinary tract infection, bladder cancer, age below 35 years, patients history of surgical treatment of CaP and those who were not interested to participate were excluded from the study. Severity of lower urinary tract symptoms were examined by IPSS and bother score questionnaire on 1st visit at urology department. Impact of LUTS on quality of life of patient was examined. Self prepared questionnaire was delivered to patients to examine the QoL as very good, good, poor and very poor. Data was analyzed by SPSS 20.0. P-value <0.05 was set as significant difference. Frequencies and percentages were applied to analyze the total values.

RESULTS

Out of 180 patients, 110 (61.11%) patients were ages 40 to 60 years while 70 (38.89%) patients were ages above 60 years. Majority of patients had urban residency 100 (55.55%) while 80 (44.44%) had rural residency. 96 (53.33%) patients were literate while 84 (46.67%) were illiterate. Hypertension found in 102 (56.67%) patients followed by diabetes mellitus and alcohol 60 (33.33%) and 18 (10%) respectively. Urethral stricture was found in 6 (3.33%) patients, overactive bladder was found in 13 (7.22%) patients (Table 1).

From 110 patients with ages <60 years, 50 (45.45%) had mild symptomatic IPSS score, 42 (38.18%) had moderate symptoms and 18 (16.36%) had severe symptoms. In patients with ages above 60, 20 (28.57%) had mild, 28 (40%) had moderate and 22 (31.43%) had severe symptoms (Table 2).

From 70 mild symptoms patients 20 had very good QoL, 35 had good QoL and 15 had poor QoL. From 70 moderate LUTS symptoms patients 5 patients had very good QoL, 15 had good QoL, 49 had poor QoL and 1 had very poor QoL. From 40 severe LUTS patients, 1 had very good, 4 had good QoL, 28 had poor QoL and 7 had very poor QoL (Table 3).

Table No.1: Demographic information of the patients

Variable	No.	%age
Age (years)		
40 – 60	110	61.11
> 60s	70	38.89
Residence		
Urban	100	55.56
Rural	80	44.44
Education		
Literate	96	53.33
Illiterate	84	46.67
Comorbidities		
Hypertension	102	56.67
DM	60	33.33
Alcohol	18	10
Urethral Stric	6	3.33
OAB	13	7.22

Table No.2: Severity of LUTS by IPSS

Variable	Age (years)		P value
	40 - 60	> 60	
Mild Symptoms	50 (45.45)	20 (28.57)	<0.05
Moderate	42 (38.18)	28 (40)	<0.05
Severe	18 (16.36)	22 (31.43)	<0.05

Table No.3: QoL association with severity of LUTS

QoL	Mild Symptoms	Moderate	Severe
Very Good	20 (28.57)	5 (7.14)	1 (2.5)
Good	35 (50)	15 (21.43)	4 (10)
Poor	15 (21.43)	49 (70)	28 (70)
Very Poor	-	1 (1.43)	7 (17.5)

P-value 0.001

DISCUSSION

Many of studies have been conducted to examine the severity of LUTS and prevalence of Lower urinary tract symptoms among patients with different ages and to examine the impact of severity of LUTS on patients QoL.¹³⁻¹⁵ Present study was conducted aimed to examine the severity of LUTS among elderly aged and middle aged patients also determine the impact of severity of LUTS on patients Quality of Life. In present study there were 61.11% patients were ages 40 to 60 years and considered as middle aged and 38.89% patients were above 60 years and consider as elderly aged patients. A study conducted by Petrick et al¹⁶ reported patients with ages below 65 year as middle aged and above 65 years as elderly ages.

In the present study, 55.56% patients had urban residence while 44.44% patients had rural residence. 96 (53.33%) patients were literate while 84 (46.67%) were illiterate. Hypertension found in 102 (56.67%) patients followed by diabetes mellitus and alcohol 60 (33.33%) and 18 (10%) respectively. Urethral stricture was found in 6 (3.33%) patients, overactive bladder was found in 13 (7.22%) patients. These results were comparable to some other studies in which majority of patients had urban residence and 45 to 55% patients were literate and OAB was found in 8.3% in middle aged patients and 3.5% in patients with ages above 60 years.¹⁹⁻²¹

In the current study, we found that from 110 patients with ages <60 years, 50 (45.45%) had mild symptomatic IPSS score, 42 (38.18%) had moderate symptoms and 18 (16.36%) had severe symptoms. In patients with ages above 60, 20 (28.57%) had mild, 28 (40%) had moderate and 22 (31.43%) had severe symptoms. These results were comparable to some other studies.^{22,23} In this study according to the severity of LUTS relation with Quality of life of patients we found 70 mild symptoms patients 20 had very good QoL, 35 had good QoL and 15 had poor QoL. From 70 moderate LUTS symptoms patients 5 patients had very good QoL, 15 had good QoL, 49 had poor QoL and 1 had very poor QoL. From 40 severe LUTS patients, 1 had very good, 4 had good QoL, 28 had poor QoL and 7 had very poor QoL. These results showed that increase in age had significant association with poor QoL p-value <0.05. We found that patients with elderly ages had a high rate of severe and moderate symptoms with poor and very poor QoL level. These results were similar to many previous studies in which patients with elderly ages had a high rate of poor and worst QoL.^{24,25}

CONCLUSION

Lower urinary tract symptoms prevalence is high in all over the world and severity of symptoms had a great impact on patients Quality of Life. From this study we concluded that severity of lower urinary tract symptoms is significantly associated with quality of life of patients. Patients with elderly ages had high rate of severe symptoms with poor quality of life.

Author's Contribution:

Concept & Design of Study:	Omar Quddus Khan
Drafting:	Muhammad Asif
Data Analysis:	Muhammad Nasir Jamil
Revisiting Critically:	Omar Quddus Khan, Muhammad Asif
Final Approval of version:	Omar Quddus Khan

Conflict of Interest: The study has no conflict of interest to declare by any author.

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