Brawijaya Journal of Urology
July 2023, Volume 4, Issue 1

p-ISSN: 2721-4982 **e-ISSN**: 2722-4546
DOI: https://doi.org/10.11594/bjurology.2023.004.01.4

The Prevalence of LUTS in Men Aged ≥40 years based on the IPSS-Ina Questionnaire

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Objectives. LUTS (Lower Urinary Tract Symptoms) are several symptoms experienced by a person due to various pathologies that occur in the lower urinary tract. The prevalence of LUTS in ≥ 40-year-old men is high and many methods including IPSS have been made to measure LUTS. Unfortunately, the high prevalence is not followed by the number of patients who are seeking treatment for their LUTS.
Methods. This observational cross-sectional study used 45 men aged ≥40 years who came to Tongauna Health Center. Each respondent was asked to fill out the IPSS questionnaire. Moreover, when the respondent has LUTS, he is also asked if he is ever looking for health care providers, where he consultations, and what the reason is if he is never looking for it.
Result. Of 45 men, there are 37 men who have LUTS and only 8 asymptomatic men. Mild LUTS is the most common symptom with 22 respondents, followed by moderate with 11 respondents, and only 4 respondents who suffered from severe LUTS. Pleased (1) is the most respondent's feel for their Quality of Life score. Only 7 respondents are ever looking for treatment, and the common reasons for them not getting treatment are their misperception about LUTS, economic factors, and attitude toward their illness.
Conclusion. The number of LUTS patients≥40 years old male at Tongauna District is high, but their initiative to treat this symptom is still low due to many factors like knowledge, economic, and patient attitude.

Keywords: BPH, IPSS, LUTS, Prostate, QoL

Introduction

LUTS (Lower Urinary Tract Symptoms) is several symptoms experienced by a person due to various pathologies that occur in the lower urinary tract like BPH (benign prostate hypertrophy), OAB (overactive bladder), weakness of the urethral sphincter, and many more. LUTS are divided into 3 parts, storage, voiding, and post micturition. Complaints of storage are frequency, nocturia, urgency, and urinary incontinence. Complaints of voiding include hesitancy, dysuria, weak urine output, and intermittence. While the post-micturition form is the post voiding residue obtained due to incomplete urination [1-3].

The prevalence of LUTS starts at the age of 40 years old and increases every decade. Another study has estimated that 90% of men between 45 and 80 years of age suffer some type of LUTS. Karin et al. [4], have already found that the prevalence of LUTS is high in American, British, and Swedish countries. From 30,000 samples shows that 72.3% of men sometimes experience LUTS and 47.9% when the symptoms are often. Many patients who experience LUTS do not get effective treatment because of 2 factors, the patient factor that does not seek medical treatment because of various reasons such as though that the complaint is reasonable in his age. Other causes are patients who did not receive optimal therapy from their LUTS. Endah's study about LUTS in 278 women show that there is a significantly different number of LUTS when people begin anamnesis conventionally compared with standard questionnaire from just 17,3% to 95,3%. This shows that patients may have experienced LUTS, but maybe they have not realized that what they are experiencing is a true pathological condition that can be treated.

Various methods of measuring LUTS have been made [5]. Some of which have been accepted internationally are IPSS (International Prostatic Symptom Score), ICIQ-LUTS (International

Consultation on Incontinence Modular Questionnaire - Lower Urinary Tract Symptoms), and DAN-PSS-1 (Danish Prostate Symptom Score). IPSS is the most widely used method for establishing LUTS in male patients. IPSS consists of 8 questions about patient experience of LUTS in the past 1 month. 7 questions related to complaints and 1 question related to the quality of life of patients due to their urinary condition. IPSS is interpreted in the form of a numerical score and is divided into 3 degrees of LUTS. 1-7 is light, 8-19 moderate, and 20-35 heavy.

In this study, we would like to find out how many ≥40 years old men in Tongauna District who experienced LUTS, how many of them are looking for medical treatment, and what the reason is if there are people who have LUTS but never looking for medical treatment.

Materials and Methods

This study uses an observational cross-sectional method to assess the prevalence of ≥ 40-year-old men who suffer from LUTS and how many of them have been treated. A total of 45 subjects (minimum sample is 43) for this research were collected from April to May 2019 to represent 793 population in Tongauna District. The subject is men with ≥40 years of age who come to Tongauna Health Center. The patients must not be illiterate and willing to be used as respondents so they can fill out our questionnaire without a problem. Exclusion factors include having a history of stroke or other neurogenic condition that can cause neurogenic LUTS and having already been diagnosed with prostate or other malignancy which can cause the metastatic process to the lower urinary tract.

Each respondent was asked to fill out the IPSS questionnaire that had been translated into Indonesian (IPSS-ina) so that respondents could understand every question. Each respondent has been explained how to fill out the questionnaire and get help when there are difficulties in understanding or filling the questionnaire. IPSS consists of 8 questions, each question representative of some of LUTS problems, especially prostatic symptoms. All of the 8 questions are to know if the patient has incomplete emptying, frequency, intermittency, urgency, weak stream, straining, and nocturia problems. Along with the quality of patient life because of LUTS from the last 1 month. When the interview is over, the patient questionnaire is divided by the severity of LUTS. Asymptomatic if their IPSS score is zero which means they don't have any LUTS symptoms, mild if their IPSS score is 1-7, moderate for 8-19, and severe for a 20-35 score. QoL points are also divided from 0-6 regarding patients' feelings about their urinary condition. Before that, respondents were being asked several questions about the patient's demographic data like name, age, address, education, health insurance, and income. Subjects were also being asked about their medical history and medication status which could cause or worsen their LUTS. Moreover, according to the IPSS questionnaire, when the respondent has LUTS, he is also asked if he is ever seeking health care providers, where he can consult, and what the reason is if he is never looking for it.

Result

This study divided respondents into several demographic groups (Table 1), including age, education, health insurance, income, and medical history. There are 18 respondents (40%) aged 40-49 years old, 14 respondents (31.1%) aged 50-59, and 13 respondents (28.9%) are ≥60 years old. Educational status may affect respondents' judgment about LUTS and its choice of treatment method [6]. As our respondents we found 20 respondents (44.4%) just went from elementary school, 24 respondents (53.3%) went from high school, and just 1 respondent (2.2%) is a bachelor. Economic factors and insurance coverage are a few of the patient's reasons to seek treatment for their medical problem or not. In this study, we found that 32 respondents (71.1%) have insurance and 13 (28.9%) don't. Income classes in low, moderate, and high respectively 19 (42.2%), 14 (31.1%), and 12 (26.7%). Low income is when their income is under 400.000 Indonesian rupiah (IDR) per month, moderate is IDR 400.000 – 1.500.000, and high is more than IDR 1.500.000.

In this study, we observed that a number of diseases like hypertension (HT), diabetes mellitus (DM), stroke, and Parkinson's disease were associated with lower urinary tract symptoms (LUTS) due to the disease itself or the medical treatment used [7]. To understand the relationship between LUTS and these diseases, we asked the respondents about their medical history. Out of the total respondents, 24 people (53.3%) did not have any disease, 13 people (28.9%) had hypertension, 3 people (6.7%) each had diabetes and heart disease, and the rest had some other disease that may not affect LUTS. Out of the 21 respondents who had a disease, 3 of them had more than one condition. One respondent had HT and tuberculosis, and two respondents had HT and heart disease. We also

Table 1. Respondent Demographic

	Group	Number	Percentage
Age group	40-49	18	40.0%
	50-59	14	31.1%
	≥60	13	28.9%
Education	Low	20	44.4%
	Moderate	24	53.3%
	High	1	2.2%
Health insurance	Yes	32	71.1%
	No	13	28.9%
Income	Low	19	42.2%
	Moderate	14	31.1%
	High	12	26.7%
Medical history	No	24	53.3%
	HT	13	28.9%
	DM	3	6.7%
	Heart disease	3	6.7%
	Other	5	11.1%

asked all the respondents about their medication status, especially the medication that can cause or worsen LUTS. Those who did not have any medical history did not take any medication. Out of the 21 respondents who had a medical history, 8 respondents did not take any medication, and 7 respondents used antihypertensive medication (AHT).

The result of the IPSS-Ina questionnaire (Figure 1) showed that 8 people (17.8%) were asymptomatic in LUTS, 22 people (48.9%) suffered mild symptoms, 11 people (24.4%) suffered moderate symptoms, and 4 people (8.9%) in severe symptoms. The quality of life (QoL) of 8 respondents who are asymptomatic is divided into 5 people feeling delighted (0) and 3 people feeling pleased (1). 22 respondents who have mild symptoms are divided into 1 person feels delighted (0), 16 people feel pleased (1), 3 people feel mostly satisfied (2), 1 person feels mixed – about equally satisfied and dissatisfied (3), and 1 person feels mostly dissatisfied (4). Eleven Respondents who have moderate symptoms are divided into 2 people who feel pleased (1), 3 people who feel mostly satisfied (2), 2 people who feel mixed – about equally satisfied and dissatisfied (3), 3 people who feel mostly dissatisfied (4), and 1 person feels unhappy (5). Four people who have severe symptoms are divided into 2 people who feel mostly satisfied (2), 1 person who feels mostly dissatisfied (4), and 1 person who feels unhappy (5).

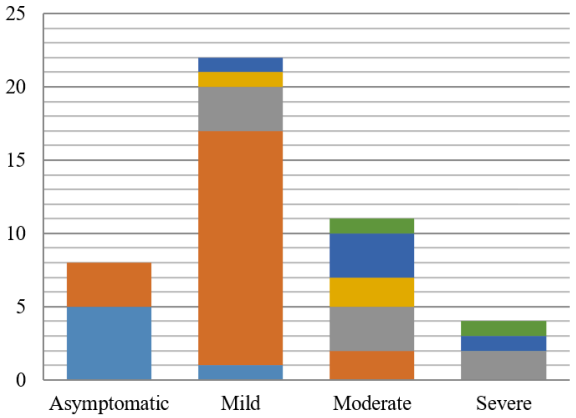

Figure 1. Severity of LUTS

According to a study, out of 45 respondents, 37 have LUTS (Lower Urinary Tract Symptoms). However, only 7 respondents (9.8%) took the initiative to get medical treatment (Table 2). Out of these 7, 2 respondents (2.7%) went to see a general practitioner, 3 respondents (4.2%) went to a paramedic, and 2 respondents (2.7%) used alternative medicine. Surprisingly, none of the respondents went to an urologist for treatment. The study also found that the rest of the respondents who have LUTS never bother to seek medical treatment. The study identified several reasons for this, which include 14 respondents (20.9%) thinking that their symptoms are normal or not knowing if it's a disorder at their age, 7 respondents (13.2%) being concerned about the cost of treatment, and 9 respondents (19.6%) being able to hold back the symptom or not wanting to seek treatment under their current condition.

Table 2. Number of LUTS patients who are looking for treatment and reasons not to find it

Respon-dent category	Types of treatment/ Reasons	Number
Get treatment	Spesialist	0
	General Practitioner	2
	Paramedic	3
	Alternative Medicine	2
No treatment	Think this is normal in his age / Don't know LUTS is a disorder	14
	Economic / Insurance factor	7
	Still can hold back the symptom / Just don't want to seek treatment	9

Conclusion

According to this study, there are still a high number of male patients aged ≥40 years with Lower Urinary Tract Symptoms (LUTS) in the Tongauna District. However, the initiative to treat this symptom is still low due to various factors such as lack of knowledge, economic constraints, and attitude of the patients.

Acknowledgement

The authors wish to thank all staff of Tongauna health center for their assistance for this study. The authors also would like to thank the participants of the study for their time and willingness.

Conflict of interest

The authors declare that they have no conflict of interests.

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