
Assessment of Symptoms for Adult Patients with Lower Urinary Tract Infection

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Abstract:-

Definition:- Lower UTIs are inflammation of the urinary bladder (bacterial cystitis), prostate gland (bacterial prostatitis), and urethra (bacterial urethritis)

Objective:- The aim of study are to assess symptoms for patients with lower urinary tract infection (UTI) and to find out the relationship between symptoms with general information (age, gender, marital status, educational level, occupation, and residential)

Methods:- A descriptive study was conducted on (50) patients diagnosed with lower urinary tract infection who were admitted at the Surgical Specialties Teaching Hospital and Baghdad Teaching Hospital and Al-Yermouk teaching hospital from 2\1\2009 to 1\6\2010.

Questionnaire was constructed and presented in six items related to demographic data and eighteen items were concerning the symptoms for patients with lower urinary tract infection. Validity of questionnaire was response through panel of ten experts. Test- Retest reliability was determined through a computation of Pearson Correlations for the symptoms scales ($r=0.84$). The data was collected through the utilization of questionnaire and interview technique. The data were analyzed through the descriptive statistical approach (frequency, percentage, and cumulative percent) and inferential statistical approach (Person correlation coefficient and mean of score).

Results:- The results of the study revealed that major age were (48-57) years and most of the study samples were female (60%) and they are married (82%) and have illiterate in the level of education (48%) and they live in urban residence (68%).

Conclusion:- The findings of the study concluded there are some items were sever more than the other such as difficult in a voiding, urgency during voiding, nocturia, back pain, dark color with urine, discomfort in lower abdomen, and anorexia. The findings also indicated a strong positive relationship between age with symptoms that mean increase of age increase of symptoms for patient with lower UTI and also find that low level of education increase of symptoms.

Key word: Symptoms lower UTI.

Introduction

Urinary tract infections are a serious health problem affecting millions of people each year. Urinary tract infections (UTI) are the second most common bacterial disease, account for more than (8) million office visits per year. More than 100.000 people are hospitalized annually because of UTIs in the United State^[1].

The urinary tract is the most common site of nosocomial infection. Most of these infection 66% to 86% follow instrumentation of the urinary tract, mainly urinary catheterization in the United State^[2]

Lower UTIs are inflammation of the urinary bladder (bacterial cystitis), prostate gland (bacterial prostatitis), and urethra (bacterial urethritis)^[3]

Avoidance of unnecessary catheterization and early removed of indwelling catheters are the most effective means for reducing nosocomial UTIs. Aseptic technique must always be followed during these procedures^[2].

A history of signs and symptoms related to UTI is obtained from the patient with a suspected UTI. The patient's usual pattern of voiding is assessed to detect factors that may predispose him or her to UTI. Infrequent emptying of the bladder, the association of symptoms of UTI with sexual intercourse, contraceptive practices, and personal hygiene are assessed. The patient's knowledge about prescribed antimicrobial medications and preventive health care measures is also assessed. Additionally, the urine is assessed for volume,

color, concentration, cloudiness, and odor, all of which are altered by bacteria in the urinary tract^[4]. The manifestations of cystitis are frequency and urgency of urination, suprapubic pain, dysuria, foul smelling urine, and pyuria. Hematuria may or may not occur in symptomatic UTI, the presence of fever, nausea and vomiting and flank tenderness usually indications of pyelonephritis. About one half of all persons with significant bacteriuria a have no symptoms or may report nonspecific signs such as increased fatigue, anorexia, or change in cognitive ability^[5].

Importance of the study:-

Urinary tract infections is the most common reason patient seek health care^[3].

Most cases occur in women; one from every five women in United States will develop a UTIs sometime during her lifetime^[6].

The urinary tract is the most common site of nosocomial infection, accounting for greater than 40% of total number reported by hospital and effecting about 600.000 patients occur in the United States each year. In most case hospital-acquired UTIs, instrument of the urinary tract or catheterization is the precipitating cause.^[6]

Approximately 11.3 million women are diagnosed with UTIs in the United States annually, representing an expenditure of about \$1.6 billion in direct health care costs. This amount does not include the indirect costs associated with time lost

from work and the negative impact on the person lifestyle^[7].

For all the reason and because of the importance of this problem the researcher sees to study the symptoms for patients with lower urinary tract infections.

Patients & Methods:-

A descriptive study was carried out through the present study to assess symptoms for adult patients with lower urinary tract infection (UTI). The study was carried out during the period extended from the 2\1\2009 to 1\6\2010.

The study was carried out of three teaching hospitals (Surgical Specialties Teaching Hospital, Baghdad Teaching Hospital, and Al- Yermouk Teaching Hospital).

Purposive (non Probability) sample of (50) adult inpatients with lower urinary tract infection in teaching hospital. Criteria of the sample (1) adult-patient, 18 to 58 years old. (2) The patients diagnosed with lower UTIs.

A questionnaire- interview format was designed and developed by the researcher for the purpose of the study; such development was employed through the available literature, clinical background and interview with patients who had lower UTIs. All the items were measured on scale of (3) indicates that the problems were persistent as (always). (2) Indicates presence of the problems as (sometimes) and (1) indicates the absence of the problems as (never)^[8]. The questionnaire consisted of (2) parts; (1) demographic information sheet which consist (6) items (age, gender, marital status, educational level, occupation, and residential) (2) Symptoms for adult patients with lower UTIs it consist (18) items.

Test- retest reliability was determined through a computation of Pearson Correlations for the depression scales ($r=0.86$).

The content validity of the instrument was established through a panel of (10) experts

The data were collected by using the questionnaire structured format through interview technique. Each interview took approximately from (15-25) minute. The determination was conducted during the period (10\2\2009 to 15\12\2009).

The researcher used the appropriate statistical means in the data analysis which include the following

1. Descriptive data analysis: (Frequencies (f) & Percentage (%))
2. Inferential data analysis: a. Mean of score: a mean of scores Less than (1.5) was considered low, from (1.5–2.5) was considered Moderate, (2.5) and above was considered high.
b. Pearson correlation coefficient

The data were analyzed through the use of Statistical Package of Social Sciences (SPSS) version 10.0.

The results of the study

This table shows that the major age group was (48-57) years 40% and the most of the study sample were female 60% and married 82%. Most of them were illiterate 48% and they live in urban residence 68%. This table indicated that the mean of score (M.S) is highly (H) significant for item (11) and low (L) significant for items (9&14) and moderate (M) on the remaining items.

This table revealed that there is strong positive relationship between age with symptoms ($r=0.65$) and there is strong negative relationship between educational level with symptoms ($r= -0.54$) and moderate relationship between symptoms with the remaining variables.

Table -1- distribution of the demographic characteristics for patients with lower UTIs.

Age	Frequency	Percent	Cumulative percent
(18-27) years	13	26.0	26.0
(28-37)	9	18.0	44.0
(38-47)	5	8.0	52.0
(48-57)	20	40.0	92.0
58 and above	4	8.0	100.0
Total	50	100.0	
Gender	Frequency	Percent	Cumulative percent
Male	20	40.0	40.0
Female	30	60.0	100.0
Total	50	100.0	
Marital status	Frequency	Percent	Cumulative percent
Single	5	10.0	10.0
Married	41	82.0	92.0
Widowed	4	8.0	100.0
Total	50	100.0	
Educational level	Frequency	Percent	Cumulative percent
Illiterate	24	48.0	48.0
Primary graduate	4	8.0	56.0
Secondary graduate	9	18.0	74.0
Institute graduate	9	18.0	92.0
College and above	4	8.0	100.0
Total	50	100.0	
Occupation	Frequency	Percent	Cumulative percent
Employee	25	50.0	50.0
Unemployed	25	50.0	100.0
Total	50	100.0	
Residential	Frequency	Percent	Cumulative percent
Urban	34	68.0	68.0
Rural	16	32.0	100.0
Total	50	100.0	

Table -2- Mean of score for items of symptoms for patient with lower UTIs.

No.	Are you suffering from	A	S	N	M.S	Severity
1	Difficult in a voiding	25	11	8	2.34	M
2	Urgency during voiding	20	18	12	2.16	M
3	Voiding more than once during three hours	17	17	16	2.02	M
4	Nocturia	25	17	8	2.34	M
5	Involuntary voiding	4	38	8	1.92	M
6	Swelling in feet	16	13	21	1.90	M
7	Hematuria	13	12	25	1.76	M
8	Back pain (backache)	24	17	9	2.30	M
9	Coma (fainting)	0	20	30	1.40	L
10	Elevated temperature with tremor	12	30	8	2.08	M
11	Dark color with urine	38	12	0	2.76	H
12	Discomfort in lower abdomen	25	17	8	2.34	M
13	Urine interruption	16	17	17	1.98	M
14	Present stone in the urinary bladder	4	0	46	1.20	L
15	Nausea and vomiting	12	30	8	2.08	M
16	Anorexia	21	21	8	2.26	M
17	Constipation	12	26	12	2.00	M
18	Diarrhea	4	29	17	1.74	M
	Total				2.03	M

A=always S=sometime N=never

Table -3- Pearson correlation coefficient between general information with symptoms.

Correlation	Age	Gender	Marital	Education	Occupation	Residence
Age	1.00					
Gender	0.63	1.00				
Marital	0.34	0.35	1.00			
Education	-0.93	-0.53	-0.33	1.00		
Occupation	0.30	0.49	-0.33	-0.17	1.00	
Residence	0.56	0.21	0.03	-0.64	0.00	1.00
Health problems	0.65	0.32	0.37	-0.54	0.27	0.18

Discussion:

The results of the study shows that the majority of age group was (48-57) years 40% and most of the study sample were female 60% and married 82%. Most of them were illiterate 48% and they live in urban residence 68%.

The results agree with other study who reported that the incidence of bacteriuria in the elderly differs from that in younger adults. Bacteriuria increase with age and disability, and women are affected more frequently than men^[9].

In women, the short urethra offers little resistance to the movement of uropathogenic bacteria. Sexual intercourse or massage of the urethra forces the bacteria up into the bladder. This accounts for the increased incidence of UTIs in sexual active women^[10].

The results of the study indicated that the mean of score (M.S) is highly significant that mean highly severity for item (dark color with urine) and low significant that mean low severity for items (coma (fainting) & Present stone in the urinary bladder) and moderate on the remaining items.

Other study stated that the variety of symptoms are associated with lower UTI include discoloration, dysuria, burning on urination, frequency, urgency, nocturia (awakening at night to urinate), incontinence, and suprapubic or pelvic pain. Hematuria and back pain may also be present^[11].

The results of the study revealed that there is strong positive relationship between age with symptoms ($r=0.65$) and there is strong negative relationship between educational level with symptoms ($r= -0.54$) and moderate relationship between symptoms with the remaining variables.

Frequent reinfections are common in older adults and increased with age^[12].

Diligent hand hygiene, careful perineal care, and frequent toileting may decrease the incidence of UTIs that mean low level of education high health problems^[13].

Recommendations

The patient is encouraged to drink liberal amounts of fluids (water is the best choice) to

promote renal blood flow and to flush the bacteria from the urinary tract.

Urinary tract irritants (eg, coffee, tea, the best, spices, colas, and alcohol) are avoided.

Frequent voiding (every 2 to 3 hours) is encouraged to empty the bladder completely because this can significantly lower urine bacterial counts, reduce urinary stasis, and prevent reinfections.

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