

Incidence of Lower Urinary Tract Symptoms in Middle Aged Patients Visiting the Gynaecology Out Patient Department of Shalamar Hospital, Lahore, Pakistan

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ABSTRACT

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Objective: To determine the incidence of Lower Urinary Tract Symptoms (LUTS) among patients visiting the gynaecology Outpatient Patient Department (OPD) of Shalamar Hospital.

Material and Methods: A cross-sectional study was performed and 300 patients were recruited. Patients aged 40 to 60 years, visiting the Gynaecology OPD at Shalamar Hospital, Lahore, Pakistan were enrolled from 1st February 2018 to 30th September 2018. The participants were categorized into two sets: Premenopausal (n=187) and Post-Menopausal (n=113). They were asked to fill the International Consultation on Incontinence Questionnaire-Short Form (ICIQ-UI Short Form¹).

Results: Increased urinary frequency was found to be the most commonly reported symptom (48%). Stress incontinence and urge incontinence were reported by 58% subjects amongst postmenopausal category and 42% in the premenopausal category. Presence of LUTS was observed to be directly proportional with age.

Conclusion: A high incidence of LUTS was observed among patients visiting gynaecology OPD of Shalamar Hospital, Lahore. Risk factors of LUTS and incontinence, like obesity and multiparity were frequently reported. Further studies are required to understand the magnitude of this problem in general population of Pakistan.

Keywords: Urinary Tract Symptoms, Incontinence, Parity, LUTS.

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INTRODUCTION

Lower Urinary Tract Symptoms (LUTS) are more frequently present than generally perceived and have significant effect on the quality of life of the ones suffering.² The International Continence Society (ICS) has defined incontinence as, “a condition in which involuntary loss of urine is a social or hygienic problem and is objectively demonstrable”. Various epidemiological studies have shown that

minor incontinence is very common finding in middle-aged women and one in twenty women suffers from noticeable incontinence. In past, the prevalence of urinary stress incontinence has been reported to be approximately 49%, urge incontinence about 22% and mixed incontinence to be approximately 29%.³ The incidence however varies with many factors especially parity as a major contributor in development of urinary incontinence.^{4,5} It is a major health concern among women of all ages but majority of affected women fail to get medical assistance due to embarrassment.^{5,7} Gynaecological operations like hysterectomy and obstetric procedures like vaginal deliveries are prominent risk factors particularly for Stress Urinary

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Incontinence (SUI). LUTS, urge incontinence and bladder over-activity are all associated with age. The incidence varies in different regions; Asia is on top of the list followed by Europe, Africa, North America and South Africa.⁸ It is the need of the hour to carry out special studies in our country as risk factors for incontinence including multiparity and obesity are common among our population and due to socio cultural reasons majority of women hide these health issues. In order to create awareness among masses about this grave issue, the first requirement is to create our local database in Pakistan and then to use this to understand our local context. Special efforts will be required to convince the health professionals to seek help from a trained Urogynaecologist to overcome this troublesome health issue. The study aimed to determine the incidence of LUTS in female patients reporting the gynaecology Outpatient Patient Department (OPD) at Shalamar Hospital, Lahore.

MATERIALS AND METHODS

The study was carried out in gynaecology and obstetrics department of Shalamar Hospital, a tertiary care teaching hospital in Lahore, Pakistan. It was a descriptive cross-sectional study which was conducted from 1st Feb 2018 to 30th September 2018. Women reporting to the gynaecology OPD were selected through convenient sampling. An informed consent was taken from all patients included in this study. All non-pregnant women attending OPD with symptoms of menstrual irregularities, failure to conceive, vaginal discharge, urinary incontinence and other utero vaginal complaints were included in this study. All pregnant women and those who gave birth in last six months were excluded from the study. A validated self-administered questionnaire¹ was used to collect the data from participants. The questionnaire requested for demographic as well as clinical details of the participants. Urinary Incontinence is defined as, ‘involuntary leakage of urine at least two time in a month, irrespective of the

quantity lost’. The risk and associated factors of incontinence were recorded along with type and time of urgency/incontinence. Data was analyzed by using SPSS-version 21. Frequencies and percentage were calculated. Pearson² test was used to test statistical significance. The relationship between dependent and independent variable was analyzed using² tests. <0.05 was taken as statistically significant. Multiple regression analyses were carried out with different categories of incontinence (dependent variables) and age, parity and mode of delivery (Independent variables), in the univariate analysis.

RESULTS

The study included 300 women, visiting gynaecology OPD. A majority (53.4%) of patients was aged between 50 to 60 years and with Body Mass Index (BMI) of more than 25(76.3%). No earlier history of Spontaneous Vaginal Delivery (SVD) was reported by 87(29%) of these patients. Out of 300, 77(25.7%) had at least one Cesarean Section (C-section). Demographic data of all patients included in this study is shown in Table 1.

Table 1: Demographic Data of Study Subjects

Variable	Number of women (%)
Age (years)	
40-49	140 (46.6)
50-60	160 (53.4)
Parity	
Nulliparous	87 (29)
Multiparous	213 (71)
BMI	
< 25	71 (23.7)
> 25	229 (76.3)
Education level	
Up to High school	139 (46.4)
Post matric	161 (53.6)
Mode of delivery	
Spontaneous vaginal Delivery	223 (74.3)
Cesarean-section	77 (25.7)

Table 2: Frequency of Urinary Symptoms in Women

Symptoms	Number of Women Experiencing Symptoms (%)
Urinary incontinence	181 (48.66)
Stress incontinence	64 (17.2)
Urge incontinence	36 (9.7)
Mixed incontinence	63 (16.3)
Day time frequency	88 (23.7)
Nocturia	148 (39.8)
Dysuria	109 (29.3)
Confirmation of UTI on culture	63 (16.9)

The prevalence of clinically significant LUTS is shown in Table 2. Urinary Tract Infection (UTI), proven by a culture & sensitivity test of urine was reported in 63 (16.9%) women whereas 109 (29.3%) had urgency and painful voiding. A day-time frequency of more than 7 was reported in 88 (23.7%) patients while 148 (39.8%) had a night time frequency of 2 or more. Almost half of these women i.e. 181(48.66%) had incontinence of urine with mixed symptoms or stress related problems (16.3% and 17.2% respectively). The data shows that 36 of these patients i.e. 9.7% were suffering from urge incontinence. The women of age group 50-60 years reported a higher percentage of incontinence symptoms (53.4%), as compared to women in age group 40-49 years (46.6%). The incidence of stress urinary incontinence (SUI) was found to be similar in all age groups whereas urgency and mixed symptoms were more frequent in age group 45 and above. The symptoms of incontinence reported in nulliparous women were lesser (29%) as compared to symptoms reported by multiparous women (71%). The symptoms of incontinence were reported by 74.3% of women who had SVD as compared to 25.7% women who had C-section. The univariate analysis of independent variables shows significant relationship of parity with stress urinary incontinence. Both urgency and mixed symptoms were significantly related to age, while parity was significantly associated with SUI (F=10.48, p<0.001). Both urge incontinence (F=20.57, p<0.001) and mixed

incontinence were also found to have clinically significant relation with age (F=13.88, p<0.001).

DISCUSSION

Urinary incontinence is found to be common with 48.66% of women complaining of urine leakage for at least twice per month. The data shows a high incidence of persistent LUTS in patients reporting in gynaecology OPD. Around a quarter of patients had increased daytime frequency (23.7%) and 39.8% had night time frequency. These findings are similar to other studies.^{3,5} The parity has been observed to have a relationship with incontinence, as nulliparous women have lesser rate of incontinence as compared to multiparous women. But within the multiparous group there is no special relation with the incidence of incontinence and number of pregnancies. Similar findings have been reported in a study by Jolleys and Ryhammer.⁸⁻¹⁰ Urine culture and sensitivity confirmed UTI in 16.9% of our study participants. Mode of delivery also have relationship in the development of incontinence both urinary and fecal as in our study about 74.3% of patients had SVD as mode of delivery. Similar results have been shown in other studies.^{9, 10} In our study it has been seen that occurrence of incontinence was high in obese women (80.9%) which is in accordance with researches conducted in other populations.¹¹ Findings similar to Fomell et al were observed suggesting that increasing age and parity is more frequently associated with SUI. Of the total 300 patients with urinary incontinence, comparable numbers reported stress incontinence (17.2%) and mixed incontinence symptoms (16.3%). Total number of patients reporting pure urge incontinence was 36. The incidence of stress incontinence was similar regardless of C-section or SVD (25.7% and 18.5% respectively) pointing possibly the deleterious effect of pregnancy itself leading to stress urinary incontinence rather than the mode of delivery. Increasing age is related to increased incidence of urge and mixed incontinence. This is similar to other studies in Western

populations.¹² Many other studies including one from Pakistan have shown that incontinence increases with age.^{13,23}

CONCLUSION

LUTS are common in patients coming in gynaecology OPD. Obesity and multiparity were frequently reported risk factors of LUTS and incontinence. Further studies are required to understand the magnitude of this problem in general population of Pakistan. Patients suffer from various symptoms of stress, urged and mixed incontinence that can adversely affect their quality of life. Nevertheless, the study gives data from a single hospital and a pre designed questionnaire with limited information was used. Moreover, in-depth studies are needed to find out the burden of problem in rural and urban settings that may have different facilities of child birth.

Recommendations

Advancements in the field of gynaecology and incidence of health problems such as LUTS, demand for a specialized care. It is essential to develop facilities to create awareness among general population and to manage these problems skillfully. It is the need of the hour that training in this sub specialty should be increased to maximize the knowledge about this significant health issue that may cause physical as well as emotional harm to those suffering. This is the first study of this kind at Shalamar Hospital which is expected to provide a scientific basis for the need of establishment of urogynaecology department in this hospital for the larger interest of these patients.

Conflicts of Interest

The authors declare no conflict of interests.

Contributors

Initial idea and proposal design were done Prof. Nazli Hameed. Manuscript writing was done by Dr. Muhammad Asghar Ali. Dr. Asma Shah Nawaz collected the data from patients. Aleezay Asghar carried out the statistical analysis and result

interpretation. Final proof reading and editing was done by Prof. Nazli Hameed.

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