Frequency of Lower Urinary Tract Symptoms during Pregnancy

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ABSTRACT

Objective: To detect the frequency of lower urinary tract symptoms in pregnant women attending antenatal clinic of obs & Gynae out patient department BVH Bahawalpur

Design: Cross sectional study

Place and duration of study: This study was carried out at Gynae Out Patient Department, B.V. Hospital Bahawalpur from July 2010 to November 2010.

Subjects and methods: 500 pregnant ladies, 18 to 35 years of age, primi and multigravida having lower urinary tract symptoms irrespective of socio-economic class and period of gestation but not having any medical disorder or multiple pregnancies were studied after informed consent. History and examination carried out and symptoms pertaining lower urinary tract recorded on pre-designed proforma. Data analysis was done through Chi-square test and interpreted in terms of P Value.

Results: 500 pregnant ladies fulfilling the inclusion criteria were included in the study; out of them 260 expectant ladies (52%) were having the lower urinary tract symptoms.
12 women (4.6%) less than 20 years of age while 248(95.4%) equal or more than 20 years gave history of one or more urological problem. Among primi gravidas 64 ladies (24.62%) reported the symptoms while 196(75.38%) multigravidas gave positive history of symptoms. The results of our study revealed that 248(95.38%) ladies with complaint belong to poor socioeconomic group. The commonest symptoms pertaining to lower urinary tract was increased diurnal frequency and/ nocturia (80.77%). Regarding irritative symptom burning micutration was detected in 61% ladies. The third frequent problem was pelvic pressure found in 55.38% pregnant ladies.

Conclusion: A significant proportion of selected population gave the history of lower urinary tract symptoms. Routine antenatal care should include inquiry regarding the symptoms in ordered to pick up the relevant cases for further investigation and management. So that ascending urinary tract infection with its grave consequence can be prevented.

Key words: Lower urinary tract, pregnancy, cystitis, UTI, frequency.

INTRODUCTION

Urinary bladder and urethra comprising the lower urinary tract form a single functional unit. Various is studies symptoms pertaining to lower urinary tract are seen quit commonly during pregnancy[1,2]. These symptoms may reflect pregnancy induced changes in urinary bladder and urethra or may be manifestation of cystitis or urethritis.

According to a study the most frequent problem was abnormal voiding pattern (Diurnal frequency and/or noctuira) complained by 84% ladies[3], stress incontinence and increased incidence of urge incontinence have also been noticed and in 25- 30% cases of pregnant women voiding difficulties have been detected[4].

Increased urine excretion during pregnancy, decreased bladder capacity and raised intracesical pressure have been blamed for the frequent occurrence of lower urinary tract symptoms among pregnant population, recently increased prevalence of abnormal detrusor activity during pregnancy has been established urodynamically[5]. Abnormal detrusor activity defined as low compliance or phasic detrusor instability or both, is the most probable underlying cause. Infections may be L.U.T may be extremely symptomatic infections; frequency dysuria, urgency and urge incontinence may results from irritability of detrusor muscles. Pregnant women seem no more susceptible to these infections then no pregnant

women according to some reports 2 to 4% of them develop U.T.I[6]. however when an infection does occur it may be more serious due to increased risk of ascending UTI

A report showed that 40% of pregnant women with acute pyelonephritis had preceding symptoms of lower urinary tract infection[7].

A pregnant women who develops a UTI should be treated promptly to avoid premature delivery of her baby and other complication such as low birth weight, premature labour, preterm rupture of membranes hypertension pre-eclampsis maternal anemia and amnionitis. Urinary tract infection is also associated with increased perinatal death[8].

MATERIALS AND METHODS

This cross sectional study was carried out at Gynae Out Patient Department B.V. Hospital Bahawalpur from July 2010 to November 2010.

Five hundred pregnant ladies fulfilling the inclusion criteria and not having any associated medical disorder or multiple pregnancies were picked-up. They were interviewed after informed consent, history was taken and complete obstetrical examination carried out. Symptoms pertaining to lower urinary tract were inquired and recorded on pre-designed proforma in four major groups A. frequency, dysuria urgency, pain in lower abdomen. Group B Stress incontinence, urge incontinence, true incontinence. Group C incomplete bladder empting, poor stream, and difficulty in passing urine. Group D miscellaneous urinary problems.

RESULTS

Five hundred pregnant ladies fulfilling the criteria were included the study and frequency of lower urinary tract symptoms was found to be 52%. Out of 260 expectant mother having the complaint 12(64%) were less than 20 years of age while 248 (95.4%) belonged to age group of equal or more than 20years. Among the subjects having no problem regarding lower urinary tract symptom 10(4.175) ladies were less then 20 years while other 230(95.38%) were of more than 20 years of age. The statistical analysis showed significant result as P value >0.5.

Sixty four (24.62%) primigravida and 196(75.3%) multiparous ladies reported the symptoms. While 94(39.17%) primary gravida and 146(60.83%) multigravida ladies did not complain any urinary tract problem, significant result seen statistically.

Our study showed that considerable proportion of pregnant women had complaint during both halves of the pregnancy, but in most cases abnormal voiding pattern worsens as the pregnancy advances.

The results of this study revealed that 248(95.38%) ladies with complaint and 214(89.17%) without complaints were from poor families. In the lower middle class 12(4.62%) pregnant women complained one or more urinary tract problems while 26(10.83%) did not, analysis showed significant results indicating more problem of urinary tract symptoms in expectant ladies belonging to poor socioeconomic class.

Table I: Age distribution of the pregnancies ladies

Age (Years)	Subject with symptoms	%	Subject without symptoms	%
<20	12	4.6	10	4.2
>7-20	248	95.	230	95.8
Total	260		240	

X^2 = 0.029, DF*=1 p*<0.05

*df=1 Degree of freedom

*P=probability value (P value < 0.05 is considered significant)

Table-2: Analysis of gestational age and urinary tract symptoms

Age (weeks))	Subject with symptoms	%	Subject without symptoms	%
> 20-10	62	23.85	94	39.17
<20	198	76.15	146	60.83
Total	260		240	

X^2 = 6.7245, DF*=1 p*<0.05
*df=1 Degree of freedom
*P=probability value (P value < 0.05 is considered significant)

Table 3: Relation between parity and lower urinary tract symptoms

Parity	Subject with symptoms	%	Subject without symptoms	%
Primi	52	24.76	106	36.55
Multi	158	75.24	184	63.45
Total	210		290	

X^2 = 3.1963, DF*=1 p*<0.05
*df=1 Degree of freedom
*P=probability value (P value < 0.05 is considered significant)

Table 4: Socioeconomic status of pregnant ladies

Income Rs./month	Subject with symptoms	%	Subject without symptoms	%
<6000	248	95.38	214	89.17
>6000	12	4.62	26	10.83
Total	260		240	

X^2 = 3.4355, DF*=1 p*<0.05
*df=1 Degree of freedom
*P=probability value (P value < 0.05 is considered significant)

DISCUSSION

The lower urinary tract symptoms are seen very commonly during pregnancy. Among pregnant population these symptoms may be due to pregnancy-induced changes in the urinary bladder and urethra or may be due to manifestations of cystitis or urethritis[9].

Our study included 500 expectant mothers while 260(52%) on direct questioning complained single or multiple problems related to lower urinary tract. According to Najmi R S, Shabbir I and Rehan N in 1999, the corresponding figures were 47%[3].

In another study 100% participant on direct questioning gave the history of at least on complaint[10]. We interviewed 158(31.6%) nulliparous and 342(68.4%) multiparous cases. Among this group 64(24.62%) of nulliparous ladies and 196(57.31%) multiparous ladies gave the history of symptoms related to lower urinary tract. The corresponding figures quoted in another study were 41% and 59% respectively[3].

The frequency of diurnal frequency and / or nocturia detected was 80.77%, which was comparable to the figures ranging from 77% to 91% as quoted in other studies[3,11].

In 1961 Francis[12] also found that 81% of women experienced frequency of micturation at some stage in pregnancy, same results are observed in our area.

We found significant results statistically, showing problems of abnormal voiding pattern are more commonly seen in multigravida.

Regarding irritative symptoms burning micturation and pain in lower abdomen were detected in 61.54% ladies. Pelvic pressure was found in 55.38% cases. Burnin cdg micturation and dysurea were found in 47.33% parturients by Najmi R S, Shabbir I and Rehan N[3]. This group of symptoms was also showed significantly high prevalence in mutiparous women in our study.

Stress incontinence was complained by 57.69% subjects while 15.38% women experienced urge-incontinence. Statistical analysis showed highly significant association between multiparity and occurrence of incontinence problems.

In a report 67% incidence of stress incontinence in pregnancy was documented and it was significantly high in multiparous women[12,13].

According to Cutner et al, the prevalence of inconinence problems in early pregnancy was found to be 25% and they also found a significant difference in the incidence of this symptom between nulliparous and multiparous subjects[4,10].

The frequency of urge-incontinence detected in other studies varied from 10% to 30% quoted in the literature[10,14,15].

A local study carried out in Lahore revealed that 26% cases had the history of stress incontinence and 12% women complained about urge-incontinence [3]. The high prevalence of these problems in our study could be due to racial factors, poor hygiene and the difference in the gestational age at which the women were visited.

Voiding difficulties were fairly common, with up to 26.92% of women complaining incomplete bladder emptying. Difficulty in passing urine and poor stream occurred in 15.38% of the symptomatic cases.

Insignificant results were drawn by statistical analysis so prevalence of voiding difficulties is same in nulliparous and multiparous ladies.

An important observation made was statistically increased prevalence of these symptoms in second half of pregnancy but many ladies had the problems starting from early pregnancy.

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