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ORIGINAL ARTICLE

Incidence of Urinary Incontinence among Pregnant Females

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ABSTRACT

Aim: The aim of the study is to govern the incidence of urinary incontinence in pregnant women and its impact on the life quality as well as its relationship with the number of births and age.

Study design: A Cross-sectional study.

Place and Duration: In the Obstetrics and Gynecology department of Habib Medical Complex, Private Health Care Facility Peshawar for six-months duration from July 2021 to December 2021.

Methods: In the third trimester, i.e., after 28 weeks, according to LMP (last menstruation) or ultrasound in the first trimester, 320 healthy pregnant women were interviewed and the information on proforma was recorded. Women who had been diagnosed with urinary incontinence, renal dysfunction, diabetes or gestational diabetes prior to pregnancy were omitted from the analysis. The main outcomes measured were incidence of urinary incontinence among pregnant females as recorded from interviews. The data was analyzed with SPSS 21.0 version.

Results: Out of 320 women, 147 reported urinary incontinence and its incidence was 45.9%, 116 (78.9%) had stress incontinence (SI), and urge incontinence in 31 (21.1%). The general SI prevalence is 36.2 % and the UI prevalence is 9.7%. 130 primigravida participated in the study, 51 of which reported urinary incontinence. The incidence of UI in the third trimester of pregnancy was 45.9%.

Conclusion: The result of this analysis shows urinary incontinence is a common occurrence during pregnancy. The results could help develop more intensive training programs to avoid UI during pregnancy by growing urinary incontinence awareness among healthcare professionals caring for pregnant females. The UI frequency in the pregnant population was 45.9%.

Keywords: Stress urinary incontinence, urinary incontinence, religious activities and urge incontinence.

INTRODUCTION

Urinary incontinence (UI) is measured as a clinical state of multifactorial etiologies[1]. Researches on urinary incontinence in gravid females have shown that the incidence of UI ranges from 32% to 64% for all UIs and 40% to 59% for stress-related UIs counting mixed incontinence, remains afterwards of delivery in 7% to 30% of females[2-3]. The pathophysiological effects of pregnancy and childbirth on the pelvic floor and the lower urinary tract in particular, persist unclear despite frequent references in the obstetric literature[4-5]. The incidence of UI peaks during pregnancy and declines postpartum. For women, pregnancy itself is a risk factor for developing UI, regardless of the way or practice of delivery[6]. The effect of estrogen is still under debate when it comes to its direct effect on UI. Irrespective of the obstetric practice and course of delivery, pregnancy had an impact on urinary incontinence[7-8]. Important UI risk factors during pregnancy were high body mass index, ≥35 years age of mother, number of deliveries and family history of UI. The utmost common category of urinary incontinence (UI) in pregnant females is Stress urinary incontinence and communal after the 1st delivery and pregnancy. It is known that high levels of estrogen and progesterone make the bladder more scaly[9]. With increased bladder capacity, the detrusor muscle becomes hypertrophic and hypotonic and anatomical changes also occurs in bladder that correspond to the lower urinary tract symptoms[10]. Such changes involve the movement of the bladder anterior and upwards, making it more in the abdomen. The trigon of the bladder converts more convex than concave and its base too widens[11]. Radiographic studies have also shown distortion of the bladder by the fundus of the uterus during pregnancy. Various analysis has related these anatomical variations to the symptoms of lower urinary tract in pregnancy. A 123 pregnant females' study of Thorp et al showed that everyday urine output, i.e., the voids per day and mean number increases with age of gestation and decreases postpartum, with incontinence episodes peaking in the 3rd trimester and improving thereafter of the birth[12]. Most uro-gynaecological difficulties can occur in gestational age or as a direct consequence of childbirth and pregnancy. The furthermost common during pregnancy are faecal incontinence, urinary tract infections, emptying and filling disorders, pelvic organ and urinary incontinence[13]. Its progress may affect from physiological deviations occurring during gestation or from earlier pregnancies[14]. The aim of the study is to govern the incidence of urinary incontinence in pregnant women and its impact on the life quality as well as its relationship with the number of births and age.

MATERIAL AND METHODS

This Cross-sectional study was held in the Obstetrics and Gynecology in the Obstetrics and Gynecology department of Habib Medical Complex, Private Health Care Facility Peshawar for six-months duration from July 2021 to December 2021. All healthy women in their third trimester or at or after 28 weeks of gestation were enrolled in the study conferring to first trimester ultrasound and their last menstrual period. This study did not include women who had incontinence or renal failure prior to pregnancy, or had taken antibiotics for a urinary tract infection in the

preceding four-weeks and were diagnosed with gestational diabetes and Type-I diabetes. All gravid females who decided to participate were enquired about their birth, age, previous birth patterns, whether urinary incontinence had occurred, urinary incontinence type and its influence on religious or social activities, and the data recorded in the prepared form. Data analysis was performed by conniving the frequency and percentage. The collected data was analysed with SPSS 21.0.

RESULTS

320 females were analysed during the study period. 25.3+ 4 years was the mean age of participants, with mean parity of one. Out of 320 women, 147 reported urinary incontinence and its incidence was 45.9%, 116 (78.9%) had stress incontinence (SI), and urge incontinence in 31 (21.1%). The general SI prevalence is 36.2 % and the UI prevalence is 9.7%. 130 primigravida participated in the study, 51 of which reported urinary incontinence.

Table 1: Frequency of stress and urge incontinence in this study

	Incontinence
Stress urinary incontinence	116(78.9%)
Urge urinary incontinence	31(21.1%)

The urinary incontinence rate for primigravida females was 39.2%, and 34 (66.7%) had stress incontinence, and urge incontinence in 17 (33.3%) of females. 190 multiparous women who participated in the study, 79 of whom reported urinary incontinence. The urinary incontinence rate in multiparous women was 41.5%, and 65 (82.3%) of them had SUI and urge incontinence in 14 (17.7%) of females. The total incidence of SI was 38.1% and urinary incontinence in 9.2% of pregnant females.

Table 2: Age distribution of cases of urinary incontinence in this study

	15-24 years	25-40 years
Incontinent	58(41.4%)	89(49.4%)
Continent	82	91

64 (43.5%) of females with urinary incontinence stated that urinary incontinence had an impact on their social and religious activity. Of the 320 participants, 140 (43.8%) were 15-24 years old out of which 58 (41.4%) reported urinary incontinence, 180 (56.3%) were 25-40 years old and among them urinary incontinence was noticed in 89 (49.4%). While the incidence of urinary incontinence is 99(30.9%) in women with prior LSCS, the incidence is 43.7% in women who have had a previous vaginal delivery, clearly showing the effect of vaginal delivery on urinary incontinence.

DISCUSSION

Pregnancy is related with numerous lower urinary tract symptoms, but UI is predominantly worrying. In addition, the urinary incontinence during pregnancy may continue after delivery[14]. Equated to females who were continent during gestation, women who reported UTIs were seven times more likely to develop persistent UTIs[15]. The UI among females in their 1st gravida more often developed urinary incontinence five-years after birth than those deprived of UI, so it is significant to perceive this indication during pregnancy[16]. The rate of urinary incontinence observed in this study was 45.9%, comparable to the analysis by Bo et al[17]. While urinary incontinence has been found in 44% of South Asian pregnant females, another study found the incidence of urinary incontinence to be 57.92% in spanish females[18]. In this study, the most common was stress urinary incontinence (36.2%), trailed by urge incontinence (9.7%). These results are very comparable to other analysis showing that stress urinary incontinence is more communal in pregnant females. In Taiwanese study of females, stress UI (SUI) (26.7%) was more frequent during gravidness compared to urge UI (4.7%) or mixed UI (6.1%)[19-20]. This verdict is significant because pelvic floor muscle exercise is operative in averting the progress of SUI during gravidness and the puerperium. The 6-week pelvic floor exercise program helps to reduce the symptoms severity among pregnant females with SUI[21-22]. In our series, the primigravida incontinence rate was 39.2% which is higher according to the Zhu study and 32.1% according to the Danish study[23]. Up to 60% in women with parity higher than four, 41.5% of parous females had incontinence. Several studies have shown a link between urinary incontinence and childbirth. This study showed that age was related with a high prevalence of urinary incontinence. Age is a risk factor for the development of urinary incontinence during pregnancy. Urinary incontinence was observed more frequently in the elderly and postpartum. Additional significant discovery in our cycle is the influence of UI on the social and religious activity of participants. 43.5% of women with urinary incontinence said that urinary incontinence influenced their social and religious activities[24]. This illustrates the scale of the delinquent and its impact on women. The downside to this study is that it was conducted in an urban population, so it may not be representative of the entire population. In addition, as this is a descriptive study, a cause-and-effect relationship cannot be established[25].

CONCLUSION

The incidence of urinary incontinence during pregnancy is very high. The verdicts will help to raise responsiveness of urinary incontinence among healthcare professionals caring for pregnant women and develop more intensive education programs to prevent urinary incontinence during pregnancy. We commend routine pelvic floor exercises for all females with pregnancy.

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