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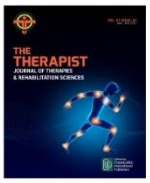

Original Article

Prevalence of Uterus Prolapse in Pregnant Females of Lahore: A Cross-sectional Survey

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ABSTRACT

Uterus prolapse is a common gynecological condition which is relatively less common during pregnancy. Prolapse maybe conceptualized as a type of herniation or bulge of the pelvic organs into or out of the vagina because of damage or weakness of connective tissues and muscles of pelvic floor area **Objective:** The objective was to determine the prevalence of uterus prolapse among pregnant females. **Methods:** This cross-sectional study was conducted in pregnant females. Sample size of 189 was calculated. Standardized questionnaire was used for data collection **Results**: A bulge or protrusion falling out that you can see or feel in your vagina was moderately present in 5.3% (10) females. Heaviness in the pelvic area was felt by 6.9% (13) females. Along with prolapse there was weakness in pelvic floor muscles and ligaments so that the leakage of urine is present in 3.7% (7) females **Conclusions:** Uterus prolapse is mildly present in 8.5% and moderately present among 5.3% of pregnant females varying with their age, parity and strength of pelvic floor structures. All females with prolapse have a bulge in their vagina but its severity is different in every woman.

INTRODUCTION

The lowering down of the uterus due to reduced muscular and ligament support towards or out of the vagina is known as uterus prolapse [1]. The structural, genomic, lifestyle and functional factors contribute to the dysfunction of muscles and ligaments of pelvic floor area that lead to uterus prolapse [2]. Uterus prolapse is a common gynaecological condition which is relatively less common during pregnancy [3]. In pregnancy uterus prolapse can occur in any trimester but is mostly seen in first two trimesters if it was pre-existing but newly develop in third trimester [4]. Prolapse maybe conceptualized as a type of herniation or bulge of the pelvic organs into or out of the vagina because of damage or weakness of connective tissues and muscles of pelvic floor area [5].

Uterus prolapse is found to be larger in societies those are less affluent and where parity is high, childbearing starts earlier, pre-existing family history, proceeding age, obesity, increased BMI, severe constipation are the most common risk factors. Uterus prolapse is mostly found in Spanish and British females in comparison with Asian lineage because of inherited racial changes in structure and function of pelvis as well as strength of pelvic floor muscles and ligaments [6,7]. Influencing factors for prolapse include multi gravidum with more vaginal deliveries, forceps deliveries, severe coughing, obesity [8]. Both genetic and obstetrical factors can contribute for the occurrence of uterus prolapse. Abnormality and weakness in the structure of pelvis or presence of ovarian

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bulk that causes repetitive increase in intra-abdominal pressure, early age pregnancy, prolonged labour, history of trauma to pelvis and higher body mass index are the predisposing factors for prolapse [9].

Pelvic floor muscles and connective tissues play a significant role in providing support to uterus and other pelvic organs so severity of uterus prolapse increases with the increasing deficiency in the pelvic floor muscles and by failure in support of connective tissues because the load shift from affected muscles to the connective tissues [10].

In some countries some daily activities are major risk factors for the occurrence of uterus prolapse in females; as carrying heavy loads during pregnancy and in early postpartum period, unprofessional doctors and attendants at the time of birth, progression in pregnancies and undernourishment because of absence of healthy food [11].

Smoking is very common risk factor in development of prolapse uterus in the women having COPD because it provokes cough, as severe coughing increases abdominal pressure that lead towards the prolapse [12].

Any surgery of pelvic area and medical treatment and care in previous pregnancy and during childbirth are linked with the occurrence of uterus prolapse [13]. Vaginal childbirth process is strongest factor for the development of prolapse because during vaginal birth neuromuscular disruption occurs as the damage occur to the levator muscles including its nerve supply that results in improper functioning of muscle. Connective tissues as ligaments hold the pelvic organs but if the damage is severe then it fails to bear the load of pelvic organs and that causes prolapse.

Increasing age and menopause are contributing factors for uterus prolapse [14]. Elastin expression is a major influencing factor for prolapse as age increases the level of elastin expression decreases that results in decreasing elasticity in the ligaments [15].

Treatment for reducing uterus prolapse is physiotherapy of pelvic region by doing Kegel exercises. Physiotherapist perform assessment to rule out prolapse then tell its prevention and according to assessment a treatment is done. Physiotherapy is beneficial to reduce the severity of prolapse and its reoccurrence during pregnancy and it improves the functions of pelvic floor muscles and connective tissues by strengthening them. Different therapies are used to strengthen the pelvic floor as physical activity, coordination and behavioural therapy, training of bowel and bladder functioning, muscle stimulation and training for endurance and power and biofeedback [16].

METHODS

It was a cross sectional observational survey-based study. Data were collected from pregnant females from hospitals of Lahore: Services Hospital, Sheikh Zayed Hospital, Doctors Hospital, Hameed Latif Hospital, Lady Wallington Hospital, Sir Ganga Ram Hospital, University of Lahore Teaching Hospital and Nawaz Sharif Social Security Hospital Lahore, Pakistan. Non-probability convenient sampling technique was used to collect data. Calculated sample size was 189. Pregnant females (coming to OPD for regular checkups), Any trimester, No restriction of number of pregnancies, Age range: 25-48 years, Both hospital setups: Government as well as Private. History of trauma, History of abortions, any other medical condition like hernia, Pre-diagnosed chronic disease; Uterine fibroids, Uterine cancer, Interstitial cystitis, Endometriosis, Polycystic Ovarian Syndrome (PCOS) etc, Look alike conditions differentiated by gynecologist and urologist: Irritable Bowel Syndrome (IBS), Constipation, Urethral prolapse, Cystocele etc, Any sexual violence were excluded. A standardized questionnaire already used in published research was opted to collect data in this study.

Data Analysis:

Data were entered in SPSS latest version. Qualitative variables were presented as frequency (%) and continuous variables as mean ± standard deviation. graphs were formulated afterwards to find out the prevalence of uterus prolapse among pregnant females.

RESULTS

Results show that feeling of bulge or protrusion falling out in vaginal area was not present in 73% of patients while 13.2% of participants didn't feel it previously, 10% had mild experience while 5.3% had moderate feeling (Table 1). Experience of heaviness in pelvic area was not felt in 46%, mild in 6.9% and moderate in 1.6% of the

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participants (Table 2). Leakage of urine related to coughing or sneezing is not present in 68.3% (129), experienced previously by 28% (53), mildly by 3.7% (7) (Figure 1).

Feeling of bulge or protrusion falling out that you can feel or see in your vaginal area.	**Frequency**	**Percentage**
Not present	138	73.0%
experienced previously (not at all)	25	13.2%
mild(somewhat)	16	8.5%
Moderately	10	5.3%

Table 1: Feeling of bulge or protrusion falling out in your vaginal area

Experiencing heaviness or dullness in the pelvic area	**Frequency**	**Percent**
Not present	87	46.0%
Experienced previously (not at all)	86	45.5%
Mild(somewhat)	13	6.9%
Moderately	3	1.6%

Table 2: Experiencing heaviness or dullness in the pelvic area

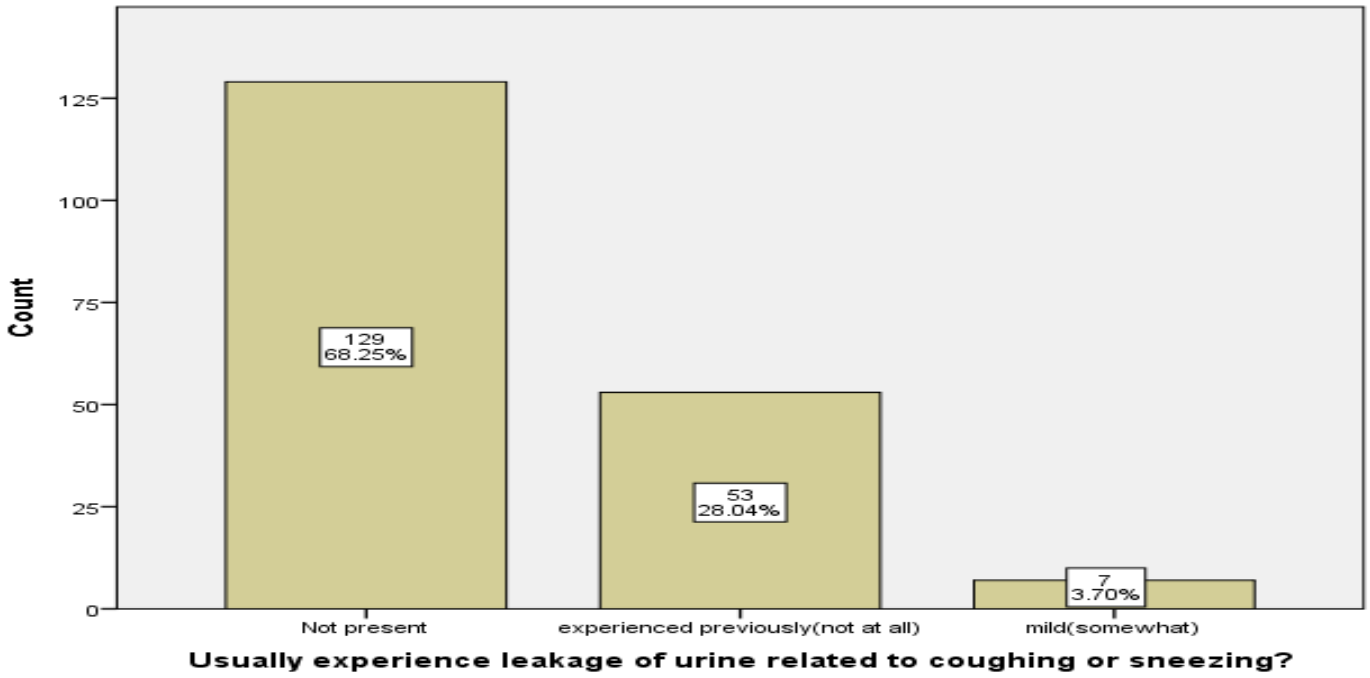

Figure 1: Leakage of urine related to coughing or sneezing

DISCUSSION

Study in Sweden included females that were inspected by Samuelsson et.al. According to this study 30.8% females have uterus prolapse of any stage. The uterus descend till the opening of vagina in 2% females. Age of females, muscle power of pelvic area and birth load were directly or indirectly linked with uterus prolapse but weight of female is not responsible for development of prolapse [17].

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The present study is similar with the above study as according to present study females who had uterus prolapse of any stage their uterus will descend down till the opening of vagina or protrude out of the vagina in appearance of a bulge. A relation is found between increasing age of mother at their first delivery and urinary incontinence symptoms because of any stress by Kuh *et al.* This association is also found by another author Foldspang et al, according to him incontinence increases with increase of age from their last delivery. Due to these risks in females the risk of uterus prolapse increases as it is also associated with increase of age of females. As women at childbirth were at age of 30 are 14% that need surgery for prolapse as females less than 30 years have 6% need of surgery for prolapse [18].

The present study is similar from the above study as there is an association between increasing age and stress urinary incontinence as well as with uterus prolapse. The women that have delivered after the age of 30 has more chances for developing symptoms of urinary incontinence by any stress as leakage of urine by coughing or laughing. These symptoms are risk factors for developing or worsening of prolapse with increase of age and this can lead to the surgery for prolapse.

One more study at Pradhan in 2007 reveals same results that prolapse uterus was found in 58% females between 20-29 years. Uterus prolapse occurs in females of early age group as according to this study prolapse starts from 14 years. As Pathak, Bonetti and Erpelding conducted a study in 2004 that was clinical based in which there were 2072 women that were examined with gynaecological problems. Out of these women one in four were diagnosed with prolapsed uterus and from which 95% females reported this problem by themselves. Reported incidence of prolapsed uterus in this study are 17% in Australia, in France it is 8.5%, in Turkey its incidence is relatively high as 27%, in US 17% incidence is found and maximum presence of uterus prolapse is in Nepal that is 9-35% [19]. The current study is in contrast from the above study as according to present study uterus prolapse is mostly found in females above the age of 30 years at it is not present in very early age as 14 years. The incidence of prolapsed uterus in present study is 16% in females of above 30 years.

CONCLUSIONS

The prevalence of uterus prolapse in pregnant females of Lahore is moderately present in 5.3% pregnant females of Lahore. Females show uterus prolapse in pregnancy in mild and moderate ranges as severe prolapse is not observed. Small number of females with uterus prolapse also experienced mild and moderate heaviness or dullness in the pelvic area. Pain in the vaginal area due to prolapse was moderate to severe. Leakage of urine by any stress was experienced mildly in a very few females.

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