927

Gupta G[1], Saini N K[1], Chhabra P[1], Suneja A[1]
1. *University College of Medical Sciences, Delhi University*

THE PREVALENCE OF URINARY INCONTINENCE, ASSOCIATED RISK FACTORS AND THE IMPACT OF INCONTINENCE ON THE QUALITY OF LIFE OF ADULT FEMALE RESIDENTS OF DELHI

Hypothesis / aims of study
This study is the first community based study on the topic of urinary incontinence in Delhi. Urinary incontinence is a distressing medical condition, which is grossly under reported in India. There is a poor understanding about nature of disease owing to lack of awareness about the same. The medical and psychological morbidity associated with urinary incontinence significantly impacts the quality of life. However, not much published literature is available on prevalence of urinary incontinence and its associated risk factors from India. Therefore, the present study was conceived to determine the prevalence of urinary incontinence, associated risk factors and the impact of incontinence on the quality of life of adult female residents of Delhi.

Study design, materials and methods
A community based cross-sectional study was conducted among 245 women aged 18 years and above residing in a resettlement colony in Delhi. Study participants were selected using multistage random sampling and were interviewed using standardized, validated Revised Urinary Incontinence Scale (RUIS) scale and International Consultation on incontinence modular questionnaire Lower Urinary Tract Symptoms Quality of Life (ICIQ-LUTSqol) to determine the prevalence and quality of life among those suffering from urinary incontinence. Statistical analysis was done using SPSS 20.0.

Results
52.8% of the study participants were 40 years or younger. 72.5% were married and 87% were homemakers. 70.3% were literate and 66.2% belonged to upper lower socio economic class. 10.8% participants were overweight and 26% were obese. The prevalence of urinary incontinence was found to be 15.2%. Of these 70.7% of the participants had mild incontinence whereas 19.5% had moderate and 9.8% had severe incontinence. Stress incontinence was reportedly the most common form (43.9%) followed by urge incontinence (31.7%) and mixed incontinence (24.4%). The mean ICIQ-LUTSQoL score among the study participants was found to be 31.02. The mean score was found to be highest among women who reported mixed incontinence (34.6%) followed by those who reported urge (30.77%) and stress incontinence (29.22%). The mean ICIQ-LUTSqol score increased with increasing severity of incontinence i.e. participants with mild, moderate and severe incontinence were found to have mean scores of 30.6, 31.2 and 33.7 respectively.
On univariate analysis, age ($p<0.001$), marital status ($p<0.001$), level of education ($p=0.010$), BMI ($p=0.005$), menopausal status ($p<0.001$), parity ($p<0.001$), type of delivery ($p=0.005$), duration of cough ($p=0.006$) and intake of tea ($p=0.035$) were significantly associated with incontinence among the study participants. Variables with $p<= 0.05$ were fed into the regression model and duration of cough (aOR = 2.248), BMI (aOR = 1.149) and age (aOR = 1.097) were found to be the predictors of urinary incontinence. One way ANOVA [$F(2,38) = 0.187$, $p= 0.830$] and Brown-Forsythe test [$F(2,38) =5.122$, $p=0.011$] were used to assess the difference in quality of life between the groups according to type and severity of incontinence and this was not found to be statistically significant.

Interpretation of results
The prevalence of incontinence was reportedly low in the present study, which can be attributed to a lack of awareness and underreporting owing to sensitive nature of the issue under question. Incontinence had an adverse impact on quality of life of study participants, especially on social participation and day-to-day activities, as indicated by the high mean scores. The adverse effect increased with increasing severity of incontinence. The difference in quality of life between various types and severity level of UI was not found to be statistically significant. The odds of having UI were 2.25 times higher in those with a history of cough for more than 2 weeks. In addition, one-unit increase in BMI was associated with a 14.9% increase in incontinence among study participants. Similarly, for every one-unit increase in age, the chances of having incontinence increased by 9.7%.

Concluding message
Urinary incontinence is a significant public health problem, which is often poorly reported and, therefore, under treated owing to culturally sensitive nature of this condition and the feeling of embarrassment and shame associated with the same. Due to a lack of awareness about urinary incontinence, it is invariably considered a part of ageing. Therefore, increasing public awareness about various preventive measures and available diagnostic and treatment modalities for incontinence can help reduce the burden of urinary incontinence and its negative impact on the quality of life of those affected.

Disclosures
Funding: Intramural research grant **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Institutional Ethics Commitee-Human Research, University College of Medical Sciences, Delhi University, Delhi **Helsinki:** Yes **Informed Consent:** Yes