



STUDY OF PREVALENCE AND FACTORS OF URINARY INCONTINENCE AMONG POSTMENOPAUSAL WOMEN

Obstetrics & Gynecology

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ABSTRACT

Introduction: Urinary incontinence has an immense impact on the social and mental health, and the quality of life of a person. Women neither come forward seeking medical consultation nor do they discuss about their incontinence openly, and the condition remains underestimated in the society. Hence, this study was undertaken to assess the type of urinary incontinence in postmenopausal women visiting obstetrics and gynecology (OBG) outpatient in a tertiary health care sector and to determine the risk factors of urinary incontinence. **Materials and Methods:** All postmenopausal women of age 45–90 years visiting the OBG Department of GURU GOBIND SINGH HOSPITAL, SHRI M.P. SHAH MEDICAL COLLEGE, JAMNAGAR in the months of JANUARY to DECEMBER 2023 were assessed for urinary incontinence. QUID questionnaire -a six item urinary incontinence diagnostic questionnaire to diagnose and differentiate stress, urge and mixed incontinence -was used. **Results:** The prevalence of urinary incontinence was 26%, stress urinary incontinence contributing 13%, mixed urinary incontinence 8%, and urge urinary incontinence 5%. Chronic cough, recurrent urinary tract infections (UTI), and prolonged duration of labor were independent risk factors associated with urinary incontinence in postmenopausal women. **Conclusion:** Stress incontinence was found to be the major type of urinary incontinence in the postmenopausal women. Those having history of chronic cough, prolonged duration of labor, and recurrent UTI should be screened regularly for urinary incontinence.

KEYWORDS

INTRODUCTION

Urinary incontinence has an immense impact on the social and mental health, and the quality of life of a person. Women neither come forward seeking medical consultation nor do they discuss about their incontinence openly, and the condition remains underestimated in the society. There are many unreported cases in the population as per several hospital-based studies done in India before.[1] The knowledge about the risk factors of urinary incontinence in this population will help us to take measures to reduce the burden of the condition.

Urinary Incontinence means loss of voluntary control to pass urine. Pathophysiology lies in the epithelial changes in the urethral mucosa due to hormonal changes in the body of the woman after menopause. After menopause, there is cessation of ovarian function which results in estrogen deficiency. Hormonal changes cause incontinence by thinning of the urethral mucosa, loss of urethral closure pressure and bladder dysfunction, sphincter dysfunction, or a combination of both.

TYPES

Stress (or the sphincter incontinence)-may occur during normal activities such as laughing, crying, coughing, climbing stairs, or lifting heavy objects.

Urge (or the bladder incontinence)-symptoms such as leaking or wetting undergarments before entering the bathroom and increased frequency of micturition.

Mixture of stress and urge incontinence (mixed) incontinence.

Risk factors

- Age
- Parity
- type of delivery
- previous hysterectomy
- smoking habits
- body mass index (BMI)
- diabetes status, chronic cough, constipation
- intake of drugs, tea, caffeine and alcohol
- physical activities.

MATERIALS AND METHODS

All postmenopausal women of age 45–90 years visiting the OBG Department of GURU GOBIND SINGH HOSPITAL, SHRI M.P. SHAH MEDICAL COLLEGE, JAMNAGAR in the months of JANUARY to DECEMBER 2023 were assessed for urinary incontinence.

All postmenopausal women of age 45–90 arriving to the gynecology OPD were informed, and consent was taken.

The details of sociodemographic factors, amount of physical exercise, habits of tobacco smoking/chewing and alcohol, use of beverages, use of medications, and obstetric gynecological predisposing factors were assessed through an interview schedule.

QUID questionnaire -a six item urinary incontinence diagnostic questionnaire to diagnose and differentiate stress, urge and mixed incontinence was used.

900 patients were interviewed in the 12 months of duration from January to December, 2023. The data were collected and compiled in MS Excel. The data were analyzed in SPSS 16 trial version. After estimating the prevalence, a secondary case control analysis was done. Bi-variable analysis with urinary incontinence was done using Pearson's Chi-square test. Multivariable analysis was done using binary logistic regression.

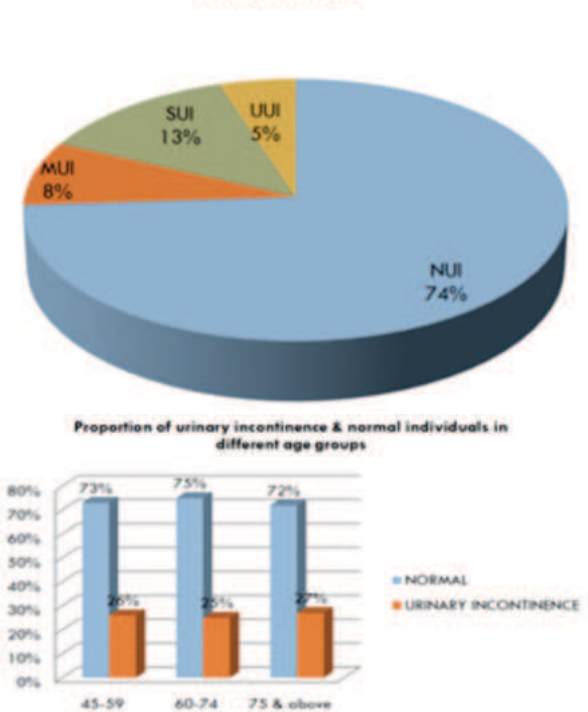
RESULT

- The mean age of the study population was 60.2 (8.1) with a range of 45–87 years.
- BMI had a range of 13.9–44.4 with a mean of 24.95 (4.1).
- Seventy-two percentage of the study participants were homemakers and 18% were professionals. Manual laborers and factory workers constituted only 3.6% and the rest were retired hands.
- Mean parity was 2.33 (1.1)
- Mean duration of labor was 8.06 (10.94).
- Distribution of other obstetric factors, comorbidities, habits, and medications is given.

Distribution of study participants based on obstetric factors, comorbidities, habits& medication (n=900) Factors

Hysterectomy	162 (18%)
Pelvicorgan prolapsesurgery	27 (3%)
Adnexalsurgery	216 (24%)
Dilatation &curettage	234 (26%)
Type of delivery	
Vaginal	720 (80%)
LSCS	99 (11%)
Vaginal and LSCS	45 (5%)
Not applicable	36 (4%)
Delivery assisted by	
Obstretician	792 (88%)
Midwife	63 (7%)
Medical officer	27 (3%)
Not applicable	18 (2%)
Physical activity IPAQ category	
Active	693 (77%)
Inactive	207 (23%)
Comorbidities	
Diabetes melitus	279 (31%)
Chronic cough	36 (4%)
Recurrent UTI	99 (11%)
Constipation	126 (14%)
Caffeine intake	
Tea	630 (70%)
Coffee	144 (16%)
Tea & coffee	81 (9%)
Non user	45 (5%)
Medication	
Diuretics	270 (30%)
Antihypertensives	315 (35%)

DISTRIBUTION OF DIFFERENT TYPES OF URINARY INCONTINENCE



Bivaiale analysis - risk factors associated with urinary incontinence

Variable	Category	P	Crude OR	95% CI of crude OR
Age	<75	0.168	0.625	0.330-1.226
Occupation	homemaker	0.084	0.596	0.322-1.074
Physical activity	Inactivity	0.156	1.144	0.865-2.416
Parity	Unipara	0.102	0.52	0.236-1.148

Diabetes	No	0.138	0.72	0.437-1.118
Age at menopause	>45	0.144	1.42	0.882-2.334
Chronic cough	yes	0.007	3.82	1.384-10.532
Recurrent UTI	yes	<0.001	4.22	2.270-7.96
Duration of labour	<8hr	0.029	0.62	0.3780.948
Type of delivery	Vaginal	0.033	2.54	1.16-6.220

Multivariable analysis-Independent risk factors of urinary incontinence

Variable	Category	p	Adjusted OR	95% CI of Adjusted OR
Chronic cough	yes	0.015	3.844	1.316-11.230
Recurrent UTI	yes	<0.001	4.112	2.166-7.810
Duration of labour	< 8 hr	0.024	0.572	0.354-0.920

Significant at 95% confidence level, Chi-square test was used. P<0.05 was considered as significant

DISCUSSION

- Total prevalence of urinary incontinence was 26%
- Stress type-13%
- Mixed-8
- Urged-5%
- Urinary incontinence is an important multifactorial health condition that can deteriorate one's quality of life.
- One thing we noticed during this study was that most of the women were oblivious of their condition and considered themselves as “normal” and considered urinary incontinence, as a “natural consequence” of aging. This may be the main reason why it always goes unnoticed and underreported and this clearly depicts the “iceberg phenomenon.”
- In this study, prevalence of urinary incontinence was more or less similar in women aged 75 and above (27%), women between 45 and 59 years (26%) and 60 and 74 years (25%).
- Chronic cough has a direct association with urinary incontinence
- Recurrent UTIs requires a proper diagnosis and treatment
- Prolonged labor may act as a direct cause for pelvic floor dysfunction
- A gynecologist's intervention during labor in case it is prolonged will include episiotomy which prevents harmful perineal tears and reduces the risk of perineal weakness
- This study shows a decrease in the incidence of urinary incontinence among those who underwent cesarean section.

CONCLUSION

- The prevalence of urinary incontinence in our study is 26% and is mainly contributed by stress incontinence.
- This study revealed chronic cough, recurrent UTI, and prolonged duration of labor to be independent risk factors for the development of urinary incontinence in postmenopausal women.

RECOMMENDATIONS

- Urinary incontinence is a trivialized matter by the society which requires great concern and attention. Knowledge among women about the risk factors may help to reduce the incidence, or at least the severity of the condition by seeking early treatment, thereby improving the quality of life.

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