

Prevalence and Risk Factors of Stress Urinary Incontinence Among Multiparous Women Attending a Tertiary Care Hospital: A Cross-Sectional Study

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Abstract

Background

Stress urinary incontinence is a common but underreported urogynecological problem affecting women, especially after childbirth. It has a significant impact on quality of life, physical activity, sexual health, and emotional well-being.

Objective

To determine the prevalence of stress urinary incontinence among multiparous women and identify associated risk factors.

Methods

A hospital-based cross-sectional study was conducted among 250 multiparous women attending the gynecology outpatient department of a tertiary care hospital over a period of 12 months. Data regarding age, parity, body mass index, mode of delivery, menopausal status, chronic cough, constipation, and history of pelvic surgery were collected using a structured questionnaire. Diagnosis of stress urinary incontinence was based on patient-reported symptoms of involuntary leakage of urine during coughing, sneezing, laughing, or physical exertion. Statistical analysis was performed to identify significant risk factors.

Results

Among 250 women included in the study, 72 were found to have stress urinary incontinence, giving a prevalence of 28.8%. The condition was significantly associated with age greater than 40 years, parity of three or more, obesity, vaginal delivery, menopausal status, chronic cough, and constipation. Women with body mass index above 30 kg/m² had nearly twice the risk of stress urinary incontinence compared to women with normal body mass index.

Conclusion

Stress urinary incontinence is highly prevalent among multiparous women and is associated with several modifiable risk factors. Early screening and lifestyle interventions may reduce disease burden and improve quality of life.

Keywords: stress urinary incontinence, multiparity, obesity, pelvic floor dysfunction, urogynecology

Introduction

Stress urinary incontinence is defined as involuntary leakage of urine during activities that increase intra-abdominal pressure, such as coughing, sneezing, laughing, or exercise. It is one of the most common forms of urinary incontinence in women and is particularly prevalent among multiparous and postmenopausal women.

Although not life-threatening, stress urinary incontinence can significantly affect quality of life by limiting social activities, physical exercise, work productivity, and sexual relationships. Many women do not seek medical care because of embarrassment, social stigma, or the misconception that urinary leakage is a normal consequence of childbirth or aging.

Pregnancy and childbirth play an important role in pelvic floor dysfunction. Repeated vaginal deliveries, prolonged labor, instrumental deliveries, obesity, menopause, and chronic increases in intra-abdominal pressure can weaken pelvic support structures and contribute to urinary leakage.

The present study was conducted to determine the prevalence of stress urinary incontinence among multiparous women attending a tertiary care center and to identify associated risk factors.

Materials and Methods

Study Design

A cross-sectional observational study was conducted in the Department of Obstetrics and Gynecology at a tertiary care teaching hospital over a period of 12 months.

Study Population

Multiparous women attending the gynecology outpatient department were included in the study.

Inclusion Criteria

- Women aged 25–65 years
- Multiparous women with at least one prior vaginal or cesarean delivery
- Willingness to participate in the study

Exclusion Criteria

- Current pregnancy
- Known neurological disorders affecting bladder function
- Active urinary tract infection
- Congenital urinary tract abnormalities
- Previous urogynecological surgery for incontinence

Data Collection

A structured questionnaire was used to collect demographic and clinical data including: - Age - Parity - Body mass index - Occupation - Menopausal status - Mode of delivery - Chronic cough - Chronic constipation - History of pelvic surgery - Smoking history

Stress urinary incontinence was diagnosed based on complaints of involuntary urine leakage during coughing, sneezing, laughing, lifting heavy objects, or physical exertion.

Statistical Analysis

Data were entered into statistical software and analyzed using descriptive statistics. Categorical variables were compared using chi-square test. A p-value less than 0.05 was considered statistically significant.

Results

A total of 250 women were enrolled in the study. The mean age of participants was 42.6 ± 8.4 years.

Baseline Characteristics

- Age greater than 40 years: 58%
- Body mass index greater than 30 kg/m²: 32%
- Parity of three or more: 46%
- Postmenopausal women: 38%
- History of chronic cough: 18%
- History of chronic constipation: 24%

Prevalence of Stress Urinary Incontinence

Out of 250 women, 72 reported symptoms suggestive of stress urinary incontinence, giving a prevalence of 28.8%.

Associated Risk Factors

Stress urinary incontinence was significantly more common among: - Women aged more than 40 years - Women with parity of three or more - Women with obesity - Women with history of vaginal delivery - Postmenopausal women - Women with chronic cough - Women with chronic constipation

Among obese women, the prevalence of stress urinary incontinence was 41.2%, compared to 21.5% among women with normal body mass index.

Women with three or more vaginal deliveries had a significantly higher prevalence compared to women with fewer deliveries.

Discussion

The present study found that stress urinary incontinence affects nearly one-third of multiparous women attending a tertiary care center. This prevalence is comparable to previously reported studies from developing countries.

Multiparity was one of the strongest risk factors identified in this study. Repeated childbirth can weaken pelvic floor muscles, connective tissue support, and urethral sphincter function, leading to urinary leakage.

Obesity was another important risk factor. Increased body weight raises intra-abdominal pressure, which may further compromise pelvic floor integrity. Weight loss has been shown to improve urinary symptoms and reduce incontinence episodes.

The higher prevalence among postmenopausal women may be explained by estrogen deficiency, which affects pelvic tissue support and urethral closure pressure.

Chronic cough and constipation also contribute to repeated increases in intra-abdominal pressure and may accelerate pelvic floor dysfunction.

Despite the high prevalence of symptoms, many women do not seek treatment because of embarrassment or lack of awareness regarding available therapies. Routine screening in gynecology clinics may therefore improve diagnosis and management.

Conclusion

Stress urinary incontinence is a common urogynecological problem among multiparous women. Advanced age, multiparity, obesity, vaginal delivery, menopause, chronic cough, and constipation are important associated risk factors.

Early identification, lifestyle modification, pelvic floor exercises, and timely referral for urogynecological care may reduce disease burden and improve quality of life.

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