

# Study on Prevalence and Severity of Urogenital Complaints in Postmenopausal Women at a Tertiary Care Hospital

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ABSTRACT

**Objective:** The objective of this study was (1) to find the prevalence of urogenital (UG) complaints after menopause, (2) to evaluate the various risk factors for UG problems in postmenopausal women, and (3) to assess the severity of the symptoms depending on the duration of menopause.

**Materials and Methods:** This study is a prospective study conducted at the Specialty Outpatient Department in Safdarjung Hospital over a period of 1 year. Two hundred postmenopausal women during this period were screened for UG complaints by eliciting detailed history in a pro forma and were divided into two groups based on the duration of menopause. Women with preexisting complaints before menopause and those with some medical disorders such as diabetes, stroke, or neurological problems were excluded from the study. Data were analyzed by standard statistical analytical tests. **Results:** The prevalence of UG symptoms in our study was 67%. Group A constitutes 127 (63.5%) participants in which menopause attained was of 1–5-year duration. Group B comprises the women with >5-year duration of menopause and it includes 73 (36.5%) patients. Among the genital complaints, vaginal dryness was the most common complaint in both the groups (Group A: 62% and Group B: 48%) followed by vaginal discharge or infection (Group A: 28% and Group B: 25%). Around 19 (15%) in Group A and 10 (13.6%) in Group B were having burning micturition (dysuria), the most common complaint encountered. The UG complaints were not statistically significantly different in both the groups. The severity of the symptoms was significantly different in two groups with more severe complaints in Group A as compared to Group B. **Conclusion:** UG complaints associated with estrogen loss can occur episodically throughout a women's life, but it is most common and chronic in the duration in postmenopausal women.

**KEYWORDS:** Menopause, postmenopausal women, urogenital complaints, vaginal dryness

## INTRODUCTION

The interest in menopausal problems has increased in recent years, due to the expansion of human life span. Women are spending more than one-third of their lives in menopausal period.<sup>[1,2]</sup> Due to this fact, estrogen deprivation can cause vaginal atrophy symptoms and vasomotor symptoms, which critically diminish quality of life (QOL) in postmenopausal women. Although climacteric symptoms, particularly vasomotor symptoms, may be transient, atrophic symptoms affecting the

vagina and lower urinary tract are often progressive and frequently require treatment.<sup>[3]</sup>

Urogenital (UG) symptoms are one of the most common symptoms of menopause. These symptoms include vaginal dryness, itching, dyspareunia, and

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**How to cite this article:** Gupta N, Aggarwal M, Sinha R, Varun N. Study on prevalence and severity of urogenital complaints in postmenopausal women at a tertiary care hospital. J Mid-life Health 2018;9:130-4.

Access this article online	
<b>Quick Response Code:</b> 	<b>Website:</b> www.jmidlifehealth.org
	<b>DOI:</b> 10.4103/jmh.JMH_91_17

urinary incontinence (UI).<sup>[2,4]</sup> Although UG symptoms are common among menopausal symptoms, there are relatively few studies on this subject in the literature compared with other symptoms. Despite the high prevalence and diversity of UG symptoms, only 20%–25% of symptomatic women seek medical help; most women avoid complaining about vaginal and urinary symptoms during their postmenopausal years, which may be attributable to that the UG symptoms can be relieved rapidly after local estrogenic administration, and UG symptoms do not pose direct threat to life but have negative impact on QOL such as personal distress and discomfort, mistaken opinion that effective treatment is not available, cultural values, and the acceptance of these symptoms as a normal aspect of aging.<sup>[5-7]</sup>

This led us to do this study in which the primary objective studied was to assess the prevalence and presence of various UG symptoms and the secondary objective was to assess the risk factors and severity of the symptoms depending on the duration of menopause.

## MATERIALS AND METHODS

This study is a prospective observational study conducted in the menopausal specialty clinic of Safdarjung Hospital over a period of 1 year. All the women who attained menopause either naturally or surgically who presented first time to the clinic for any complaints were evaluated for the UG symptoms with the help of predesigned questionnaire. Natural menopause was defined as the cessation of menstruation for at least 1 year. Surgical menopause was defined as menopause after bilateral oophorectomy with or without hysterectomy.

On follow-up visits, those women were also included who developed UG complaints which were not present at the first visit. Women with preexisting complaints before menopause and those with some medical disorders such as diabetes, stroke, or neurological problems were excluded from the study. Based on the duration of menopause, the women included in the study were divided into two groups. Group A constitutes the women in which the duration of menopause was 1–5 years and Group B constitutes the women with the duration of menopause >5 years.

The questionnaire contained questions about their demographic data including age, age of menopause, weight, height, number of pregnancies and births, route of delivery, marital status, any addiction such as smoking or alcohol, personal details such as sleep pattern or dietary habits, regular exercise, educational level, and income through open-ended questions. UG symptoms' assessment included vaginal dryness, vaginal discharge or infection, dyspareunia, loss of libido, urgency,

burning micturition, and UI. Severity of each symptom was assessed by asking whether it had occurred within the past 4 weeks and assessed the prevalence and severity (mild symptom defined as symptom less than twice a week, moderate symptom as symptom between 3 and 5 days/week, and severe symptom as more than 6 days/week). Data were analyzed by standard statistical analytical tests.

## RESULTS

This is a prospective observational study in which all the new registered cases of menopausal women with varied duration of menopause were screened. It constituted the 300 women who came to specialty menopausal clinic for any complaints after menopause. Among these women, 200 postmenopausal females were having UG complaints and were included in the study, making that the prevalence of UG symptoms in our study was 67%.

Among 200 women included in the study, 138 (69%) were in the age group of 45–55 years, 46 (23%) were in the age group of 56–65 years, and rest of the females, that is, 16 (8%) were >65 years' age group. Based on the duration of menopause, two groups were made as shown in Table 1. Group A constitutes 127 (63.5%) participants in which menopause attained was of 1–5-year duration. The mean age in this group was 51.3 years. Group B comprises the women with >5-year duration of menopause and it includes 73 (36.5%) patients. The mean age in Group B was 58.5 years.

All the participants were asked about the various UG complaints with the help of predesigned questionnaire. Among the genital complaints, vaginal dryness was the most common complaint in both the groups (Group A: 62% and Group B: 48%) followed by vaginal discharge or infection (Group A: 28% and Group B: 25%). Around 19 (15%) in Group A and 10 (13.6%) in Group B were having burning micturition (dysuria), the most common complaint encountered. The UG complaints were not statistically significantly different in both the groups and tabulated in Table 2. This implies that the prevalence of the UG complaints was not related significantly to the duration of menopause.

The various risk factors such as parity, body mass index (BMI), educational status, literacy, smoking or alcohol intake, and regular exercise was evaluated in

**Table 1: Duration and nature of menopause**

Duration of menopause (years)	Natural menopause (n)	Surgical menopause (n)	Total, n (%)
1-5	119	8	127 (63.5)
>5	70	3	73 (36.5)

both the groups. These risk factors were not affecting the presence of UG complaints in both the groups [Table 3].

On applying Fisher's exact test, it has been observed that the UG symptoms are dependent on educational status and BMI. The UG complaints were significantly higher in illiterate and lean (BMI <25) women in the initial years of menopause as compared to literate and obese women (BMI >25) who were having more complaints in later years of menopause.

The severity of all the UG complaints were assessed and divided into the mild, moderate, and severe. On applying statistical analysis, severity of the symptoms was significantly different into two groups with more severe complaints in Group A as compared to Group B as tabulated in Table 4.

Hence, in our study, the presence of UG symptoms does not depend on the duration of menopause, but severity depends on the duration. The symptoms were more severe in the initial years of menopause, but the severity has been decreased over the time with the passing years of menopause. It implies that the women in their later years of menopause had milder symptoms as compared to initial years. This may be because the women's body had adjusted for the low levels of circulating steroid hormones (estrogen and progesterone).

## DISCUSSION

The menopause is a physiological event that occurs in all women who reach midlife. In menopausal women, genital atrophy occurred due to estrogen deficiency which ultimately leads to vaginitis, itching, and obvious narrowing of the vagina. It affects not only the vagina but also urinary tract and bladder.

Huang *et al.* in their study found that the mean age of the study population was  $53.8 \pm 7.4$  years,<sup>[8]</sup> and in another study by Fazel *et al.* in 2011, the mean age of participants was  $56.81 \pm 8.13$  years.<sup>[9]</sup> Soontrapa *et al.* found that the mean age of the participants was 57.1 years.<sup>[10]</sup> In our study, we have divided into two groups on the duration of menopause, and the mean age was 51.3 and 58.5 years in Group A and Group B, respectively.

Chin *et al.* in 2009 found that the prevalence in their study was 63%, which is higher than that reported in the clinical trial literature but comparable to our study, that is, the prevalence reported in our study was 67%.<sup>[11]</sup>

In a study in 2009, they have found that the vaginal dryness was the most common vaginal symptom, occurring in 121 women (48%). This was rated as severe or very severe in 56 of 121 (46%). Thirty-one of 251 (12%) women experienced urinary

**Table 2: Urogenital complaints\***

Complaints	Group A, n (%)	Group B, n (%)	P
Urological complaints			
Urgency	13 (10.2)	7 (9.6)	0.97 (NS)
Burning micturition	19 (14.9)	10 (13.6)	
Incontinence	15 (11.8)	7 (9.6)	
Genital complaints			
Vaginal dryness	78 (61.4)	35 (48)	0.93 (NS)
Vaginal discharge or infection	35 (27.6)	18 (24.6)	
Dyspareunia	14 (11)	5 (6.2)	
Loss of libido	30 (23.6)	14 (19)	

\*Multiple answers. NS: Not significant

**Table 3: Risk factors for urogenital complaints**

Risk factors	Group A, (n)	Group B, (n)	P
Parity			
0-2	61	41	0.3
>2	66	32	
Educational status			
Illiterate	101	31	<0.001 (S)
Literate	26	42	
BMI			
<25	94	24	<0.001 (S)
≥25	33	49	
Smoking			
Yes	2	0	0.53
No	125	73	
Alcohol			
Yes	0	0	1
No	127	73	
Exercise			
Yes	26	17	0.72
No	101	56	

S: Significant, BMI: Body mass index

**Table 4: Severity of urogenital symptoms**

Severity of symptoms	Group A, n (%)	Group B, n (%)	P
Mild	20 (15.74)	52 (71.2)	<0.00001 (S)
Moderate	81 (63.7)	18 (24.6)	
Severe	26 (20.47)	3 (4.1)	

S: Significant

symptoms.<sup>[11]</sup> The Women's Health Initiative study showed that the prevalence of vaginal dryness was 27.0%, irritation 18.6%, and vaginal discharge 11.1%.<sup>[12]</sup>

Fazel *et al.* in 2011 indicated that 42.2% of the participants experienced vaginal dryness, 16.1% vaginal itching, 21.5% vaginal discharge, and 36.7% dyspareunia.<sup>[9]</sup> In a study in Istanbul, Turkey, by Yesiltepe *et al.*,<sup>[13]</sup> similar figures were reported: vaginal discharge (23%), dyspareunia (45.3%), and urologic problems (68.8%).

Fazel *et al.*<sup>[9]</sup> (2011), 54% of the cases experienced incontinence whereas in another Iranian study by Chaychyan,<sup>[14]</sup> 28.4% of participants in Tehran, Iran, were affected by incontinence. In Bozkurt *et al.* study, 4.1% experienced vaginal discharge, which was different in the experienced vaginal discharge. Dyspareunia was reported to be rising to age 60 but remaining constant up to 10%.<sup>[4]</sup> Soontrapa *et al.* in 2011 found in their study that the UG symptoms had a high prevalence (vaginal dryness 71.2%, dyspareunia 52.0%, and incontinence 62.4%).<sup>[10]</sup>

There are not many studies till date which have told about the UG complaints based on the duration of menopause. There is one study in 2014 by Aydin *et al.* in which it has been found that the UG complaints decrease with the increase in the duration of menopause. In their study, 470 (43.8) women up to 20-month duration of menopause, 236 (22.2) participants between 21 and 40 months, 146 (13.6) women between 41 and 60 months, 45 (4.2) women between 61 and 80 months, and 174 (16.2) women with >80-month duration of menopause were having UG complaints.<sup>[15]</sup> This is consistent with our study as we have also found that the number of patients decreases as the duration increases. In our study, 127 (63.5%) participants in which menopause attained were of 1–5-year duration and 73 (36.5%) patients were with >5-year duration of menopause.

In our study, among the genital complaints, vaginal dryness was the most common complaint in both the groups (Group A: 62% and Group B: 48%) followed by vaginal discharge or infection (Group A: 28% and Group B: 25%). Around 19 (15%) in Group A and 10 (13.6%) in Group B were having burning micturition (dysuria), the most common complaint encountered.

In a study by Aydin *et al.* in 2014, urinary symptoms, dysuria ( $P = 0.001$ ), and urgency ( $P = 0.021$ ) were more common among higher parity women. Nocturia occurred more frequently in obese women ( $P = 0.013$ ) and nonsmokers ( $P = 0.036$ ). Women with higher parity ( $P = 0.001$ ), lower educational status ( $P = 0.007$ ), and higher BMI ( $P = 0.019$ ) were more frequently concerned about UI. Lower educational status was associated with vaginal pain ( $P = 0.002$ ), itching ( $P = 0.001$ ), and discharge ( $P = 0.011$ ). Higher parity was associated with vaginal itching ( $P = 0.001$ ), discharge ( $P = 0.007$ ), and burning ( $P = 0.012$ ). BMI was the only factor that was significantly associated with the appearance of at least three urinary symptoms, with each one-unit increase in BMI increasing the risk of urgency ( $P = 0.001$ ), nocturia ( $P = 0.001$ ), and frequency ( $P = 0.009$ ).<sup>[15]</sup>

In our study, results are comparable to this study as BMI and educational status were significantly associated with UG complaints in both the groups.

Our study made a significant contribution to a small group of studies done to assess the prevalence of patient's seeking consultation in terms of UG symptoms. There were few limitations of this study which the populations were observed in our study as they were in the menopausal specialty clinic, so it cannot reflect to all menopausal women, and the method used to classify these symptoms is based on detailed questions and the clinical symptoms without any clinical examination, urine investigations, and urodynamic assessment.

## CONCLUSION

Due to the high prevalence of UG symptoms, physicians need to increase their attention to these symptoms which can be done by improving patient–physician communication. The risk factors for urinary and vaginal symptoms should be assessed thoroughly in postmenopausal women to facilitate earlier treatment. Educational status and BMI are significantly associated with UG complaints and the duration of menopause. As the duration of menopause increases with the passing years, the women are having milder UG complaints.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

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