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Original research article

A prospective study of prevalence of spectrum of genitourinary syndrome of menopause and its demographic representation in postmenopausal women

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Abstract

Introduction: Total no. of Indian females aged 50 years and more will rise from 95 million in 2010 (as per last censes) to 168 million in 2030 i.e. an increase of 75% (2). GSM is silent epidemic that affects up to 50-60% of postmenopausal females. Symptoms are diverse and prevalence is high and GSM seriously effects the health and quality of life of postmenopausal females. It is associated with sexual dysfunction of postmenopausal females. GSM remains extremely under-diagnosed despite its high prevalence because of reluctance among women to seek help due to embarrassment or due to tendency among women to consider it as a normal feature of natural aging. While vasomotor symptoms of menopause get resolved with time; symptoms of GSM persist and get worsen with time.

Material and Method: A prospective observational study was done to study the demographic representation and spectrum of GSM in post-menopausal women for a period of 6 months from July 2022 to December 2022. All postmenopausal women attending OPD of department of OBGY at ABVGMC, Vidisha was questioned using a pretested questionaire.

Result: Prevalence of spectrum of GSM ranged from 22% to 84%. Maximum women presented with urinary symptoms i.e. 84%. Minimum women presented with sexual problems especially related with desire, arousal and orgasm i.e. 22%. Maximum women suffering from GSM were in age group of 55-59 years. Symptoms of GSM are not life threatening, they are progressive and have profound effect on QLI of postmenopausal women by negatively affecting self-esteem and intimacy with their partners.

Conclusion: GSM is a comprehensive term that includes vulvo-vaginal symptoms and lower urinary tract symptoms related to low estrogen levels. In Asian population symptoms of urinary tract have greater prevalence due to cultural attitude of hesitation in sharing sexual dysfunction. Symptom awareness, Seeking early treatment, Knowledge about spectrum of GSM can significantly improve the QLI and reduce the high prevalence.

Keywords: Genitourinary syndrome, demographic representation, postmenopausal women

Introduction

Menopause is associated with arrest of ovarian synthesis of estrogen, progesterone and dehydroepiandrosterone (DHEA). Deficiency of estrogen and common embryonic origin of genital and urinary tract leads to constellation of symptoms that is termed as genitourinary syndrome of menopause (GSM) [1]. GSM is a chronic, progressive, vulvo-vaginal, sexual and lower urinary tract condition characterized by a broad spectrum of signs and symptoms. GSM includes

1. Genital symptoms-dryness, burning, irritation.
2. Sexual symptoms-lubrication lack, discomfort or pain and impaired function.
3. Urinary symptoms-urgency, dysuria and recurrent UTI.

Previously term vulvo-vaginal atrophy and atrophic vaginitis were used widely. Vulvo-vaginal atrophy refers to atrophy of vulval and vaginal mucosa. But it mentions only vulva and vagina and can't be used comfortably in general social discussion. Therefore, the board of directors of the International society for the study of women's sexual health (ISSWSH) and the board of the North American Menopause society

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(NAMS) have acknowledged the necessity of new terminology instead of term vulvo-vaginal atrophy and atrophic vaginitis and finally formally approved the term GSM in early 2014. Total no. of Indian females aged 50 years and more will rise from 95 million in 2010 (as per last censes) to 168 million in 2030 i.e. an increase of 75% [2]. GSM is silent epidemic that affects up to 50-60% of postmenopausal females [3]. Symptoms are diverse and prevalence is high and GSM seriously effects the health and quality of life of postmenopausal females. It is associated with sexual dysfunction of postmenopausal females [4]. GSM remains extremely under-diagnosed despite its high prevalence because of reluctance among women to seek help due to embarrassment or due to tendency among women to consider it as a normal feature of natural aging. In some cases reluctance among health care professionals to address these issuses.

Material and Method

This single center, prospective observational study, involved postmenopausal women, visiting gynecology OPD of ABVGMC, Vidisha, over a period of 6 months (July 2022-December 2023). Sampling frame was, all menopausal women visiting Gynecologic OPD of ABVGMC, Vidisha and sampling technique was purposive sampling.

Inclusion criteria

This study included 1500 postmenopausal women, visiting gynecologic OPD during the study period, who had attained menopause one or more years back, and gave consent to participate, after explaining to them, the structure and nature of this study.

Exclusion criteria

1. Perimenopausal women.
2. Postmenopausal women with-surgical menopause.

- Already on hormone or non-hormonal replacement therapy.
- On chemotherapy or radiotherapy for a known malignancy.
- Having abnormal cytology in pap smear with/without suspected malignancy.
- Women having serious disease or mental retardation.
- Having chronic disease or any organ dysfunction or skin disease.
- On anti -estrogen, antipsychotic, steroid or antidepressant medication.
- Using lubricant powder, irritant panty liners.

All eligible women were given a structured questionnaire which was pretested and checked. They were evaluated on the basis of pretested questionnaire by face to face interview. Result were noted and tabulated to draw conclusion.

Result

Present study was done on total 1500 postmenopausal females. Prevalence of spectrum of GSM ranged from 22% to 84%. Maximum women presented with urinary symptoms i.e. 84%. Minimum women presented with sexual problems especially related with desire, arousal and orgasm i.e. 22% decreased lubrication was found in 40% cases. Discomfort or pain during sexual activity was found in 60% cases. Decreased arousal or orgasm is found in 22% cases. Irritation or itching of vulva or vagina is found in 80% cases.

Prevalence of spectrum of GSM

S. No.	Symptoms	Total no. of patient (n= 1500)	Percentage
1.	Genital dryness	570	38%
2.	Decreased lubrication	600	40%
3.	Discomfort or pain during sexual activity	900	60%
4.	Decreased arousal, orgasm, desire	330	22%
5.	Irritation, burning or itching of the vulva or vagina	1200	80%
6.	Dysuria	1260	84%
7.	Urinary frequency and urgency	1260	84%

Demographic representation of GSM Symptoms based on Age

S. No.	Age Group (In years)	Percentage
1.	44-49	19.8%
2.	50-54	22.1%
3.	55-59	38.3%
4.	60-64	10%

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5.	65-70	9.6%

In our study population of 1500 postmenopausal females. Maximum women were in age group of 55-59 years. Minimum were in age group of 65-70 years i.e. 9.6%.

Discussion

In our study population prevalence of GSM was found to be high up to 84%.This high prevalence is found world-wide. As per Nappi RE *et al.* [1], prevalence rate in western population is 45 to 63%. As per Chae HD *et al.* [2], Korean population have 49% prevalence rate. US population have prevalence rate of 66% as per Krychman *et al.* [5]. In our study population prevalence of urinary symptoms GSM was found to be High up to 84%. Urinary symptoms of GSM are due to -common embryonic origin from uro-genital sinus of both genital tract and urinary tract. As estrogen decreases post menopause, it leads to urinary symptoms such as dysuria, urgency, frequency, nocturia, urinary incontinence, and recurrent UTI, Robison D *et al.* [3]. Decreased estrogen leads to altered connective tissue causing intrinsic sphincter dysfunction resulting in urinary symptoms of GSM Hyun *et al.* [4].

As a result of estrogen deficiency after menopause, anatomic and histologic changes occur in female genital tissues, including reduction in the content of collagen and hyaluronic acid and in the levels of elastin, thinning of the epithelium, alterations in the function of smooth muscle cells, increase in the density of connective tissue and fewer blood vessels. These changes reduce elasticity of the vagina, increase vaginal pH, lead to changes in vaginal flora, diminish lubrication, and increase vulnerability to physical irritation and trauma [6, 7].

High prevalence of urinary symptoms in comparison to sexual dysfunction is consistent with many other studies done in different part of India. Pal *et al.* [12], Motilal *et al.* [13], Dhillon *et al.* [14] studied postmenopausal females of west India and found higher prevalence of urinary symptoms. Rahman SASA *et al.* [15] studied post-menopausal females in Bangladesh and Soules MR *et al.* [16] studied post-menopausal females in a tertiary care centre in Malaysia and found similar results. Thus it can be concluded that Asian population have higher prevalence of urinary symptoms of GSM.

Though many studies done have found higher prevalence of vaginal symptoms. Levin *et al.* [17] and Gandhi *et al.* [18] studied American population and found higher prevalence of vaginal symptoms in GSM. Moral E *et al.* [19] studied European post-menopausal females and found more incidence of vaginal symptoms in them.

High prevalence of urinary symptoms are found in studies done in Asian population; while studies done in western countries shows high prevalence of sexual dysfunction is because of hesitation in Asian women to share sexual problem because of hesitation, embarrassment and cultural attitude.

Though Symptoms of GSM are not life threatening, they are progressive and have profound effect on QLI of postmenopausal women by negatively affecting self-esteem and intimacy with their partners. This have been proved by many studies done in different part of world like by Moral E *et al.* [19], Sturdee DW *et al.* [20], Nappi RE *et al.* [5].

Conclusion

GSM is a comprehensive term that includes vulvo-vaginal symptoms and lower urinary tract symptoms related to low estrogen levels. Previously used Term vulvo vaginal atrophy and atrophic vaginitis did not cover full spectrum of disease. It is a hidden epidemic having high prevalence world-wide. In Asian population symptoms of urinary tract have greater prevalence due to cultural attitude of hesitation in sharing sexual dysfunction. GSM have profound negative effect on QLI of post-menopausal women, women should be made aware of their problems and treated with an effective therapy. Medical professionals should also be sensitized towards problem of GSM.

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