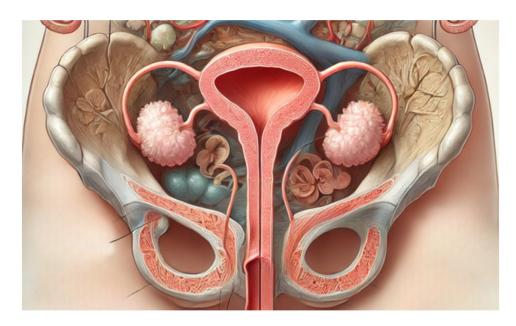
## GIBS



## NEWSLETTER



## UROGENITAL TRACT IN MENOPAUSE

By Dr. Amita Jain

### 5th GIBS International IC/BPS Patients Day

#### **HYBRID**

Online: 2PM - 4PM IST

Offline centre: Indraprastha Apollo Hospital, New Delhi 11AM - 4PM IST

DECADE Celebration!!

10th Annual Congress

on IC/BPS - GIBS 2025

Date: 23rd & 24th August 2025 Venue: Kokilaben Dhirubhai Ambani

Hospital, Mumbai

Theme: Decode, Demystify, Drive

IC/BPS

Several changes in the urogenital tract during menopause make women susceptible to catch repeat infections and develop chronic irritation. Associated symptoms could either mimic features of Bladder Pain Syndrome (BPS) or probably could be a future cause of the same. Apart from general risk factors of elderly age group like diabetes, functional disability, prolapse etc., following specific changes in urogenital tract of postmenopausal ladies make them susceptible to chronic irritative lower tract urinary symptoms (LUTs).

- 1. **Urogenital atrophy:** The major cause of urogenital atrophy in menopausal women is estrogen loss. The decrease in estrogen levels causes the substantial reduction in epithelial proliferation leading to vaginal walls to become thinner, drier, and less elastic [1].
- 2. Change in microbiota: The physiological changes associated with menopause can perturb the vaginal microbiota in ways that can result in unfavourable shifts in Lactobacillus-dominance. Lactobacilli ferment glycogen and create lactic acid, which is inhibitory to other bacteria, therefore maintaining a protective vaginal microbiome and preventing dysbiosis and infection. Lactobacilli also maintain vaginal health by preventing adherence of uropathogens to the vaginal epithelium. The hypoestrogenic state of menopause can directly impact the vaginal microbiota and have been associated with decreased glycogen deposition. These changes can result in lower levels of vaginal Lactobacillus spp. and higher levels of facultative and strict anaerobic bacteria (i.e., Anaerococus, Peptoniphilus, and Prevotella spp, etc.) [2].
- 3. pH imbalance: The normal vaginal pH is acidic, ranging from 3.8 to 4.5. However, the resultant Lactobacillus-deficient state during menopause can manifest with elevated vaginal pH levels >4.5 and a decreased ability of the vaginal microenvironment to protect against colonization by potential pathogenic micro-organisms (i.e., F. vaginae); thus creating an environment conducive to bacterial growth [3].
- 4. **Decreased immune function:** The decline in estrogen levels also affects the immune system, making it less effective in fighting off infections.
- 5. Incontinence and poor hygiene: Irreversible structural and functional changes occur in bladder, bowel, urethral, and neural control with aging. Atrophic changes and deterioration of tissue strength due to lack of hormones led to further worsening in in postmenopausal ladies. That's why, urodynamic evaluation reveals a decrease in maximal cystometric bladder capacity and maximal urine flow rate, an increase in voiding time and post-void residual urine volume, and a decrease in muscle contraction rate owing to increased fibrosis in postmenopausal women [4]. Overall, the incidence of urgency, frequency, intermittency, urgency urinary incontinence, frequency of incontinence episodes, stress urinary incontinence, and faecal incontinence was found to be higher in elderly population and some unhealthy toileting behaviours (premature voiding, straining during voiding, etc.) are more prevalent in older women [5].

Additional specific risk factors for LUTs in postmenopausal women include history of premenopausal LUTs, cystocele, and blood group Ag secretory status [6].

#### PLACE OF VAGINAL ESTROGEN THERAPY

A recent meta-analysis concluded that vaginal estrogen could reduce the episodes of recurrent urinary tract infections (rUTIs) in postmenopausal women in comparison to placebo (five studies, 1936 women: RR 0.42; 95% Cl, 0.30– 0.59), but not the oral estrogen (three studies, 2766 women: RR 1.11; 95% Cl, 0.92–1.35). It also lowers vaginal pH (two studies, 211 women: mean difference, –1.81; 95% Cl, –3.10—0.52) significantly without adverse events, including vaginal discomfort, irritation, burning, or itching (four studies, 324 women: RR 3.06; 95% Cl, 0.79–11.90).

One study also reported that vaginal estrogen could reduce levels of urine interleukin 6 and reduce urine inflammatory scores, indicating the genitourinary inflammatory response and suppression of associated symptoms with local estrogen treatment.

As its absorption is dose dependent and may be influenced by the delivery system, various formulations have been proposed. The preparations of vaginal estrogen therapy can be classified as low, intermediate-, and high-dosage preparations.

Low- dose vaginal estrogen is around 7.5  $\mu$ g for vaginal rings and 10  $\mu$ g for tablets. Long-term administration has been reported to possibly increase plasma estradiol levels not above the normal range of i.e.  $\leq$  20 pg/ml, suggesting that it is safe.

Intermediate dose is 25  $\mu g$  estradiol or 0.3 mg conjugated equine estrogen.

High dose is 50–2000  $\mu$ g estradiol or 0.625–2.5 mg conjugated equine estrogen.

Intermediate and high doses may result in plasma estradiol levels > 20 pg/ml. Usually, all vaginal estrogen preparations uses higher doses; however, no serious adverse events were reported, if used <1 year. It is also noteworthy that vaginal estradiol absorption is acute with peaks at about 8 h that return to baseline at 12 h [7]. Within the first 12 weeks of use, Lactobacillus is restored and there is an associated recovery of the host defences [8].

#### CONCLUSION

Chronic irritative LUTs are a significant health concern in postmenopausal women, affecting their quality of life and overall well-being. This could also be a contributing factor or even cause for BPS but by practicing good hygiene, using lubricants or estrogen therapy, getting tested regularly, and maintaining a healthy diet, postmenopausal women can reduce the risk of developing the same.

#### REFERENCES

- 1. Calleja-Agius, J., & Brincat, M. P. (2015). The urogenital system and the menopause. Climacteric, 18(sup1), 18–22. https://doi.org/10.3109/13697137.2015.1078206
- 2. Mirmonsef P, Modur S, Burgad D et al. Exploratory comparison of vaginal glycogen and Lactobacillus levels in premenopausal and postmenopausal women. Menopause. 2015;22(7):702-9. [PubMed: 25535963]
- 3. Muhleisen AL, Herbst-Kralovetz MM. Menopause and the vaginal microbiome. Maturitas. 2016;91:42-50. [PubMed: 27451320]
- 4. Lau HH, Su TH, Huang WC. Effect of aging on lower urinary tract symptoms and urodynamic parameters in women. Taiwan J Obstet Gynecol. 2021;60(3):513-6. https://doi.org/10.1016/j.tjog.2021. 03.022.
- 5. Karaaslan, Y., Korkut, Z., Yilmaz, H. et al. Lower Urinary Tract Symptoms, Toileting Behaviors, and Pelvic Floor Knowledge in Younger and Older Women. Int Urogynecol J 35, 1457-1468 (2024). Health https://doi.org/10.1007/s00192-024-05831-2.
- 6. Jung, C., & Brubaker, L. The etiology and management of recurrent urinary tract infections in postmenopausal women. Climacteric, 22(3), 242-249 (2019). https://doi.org/10.1080/13697137.2018.1551871
- 7. Raz R & Stamm WE A Controlled Trial of Intravaginal Estriol in Postmenopausal Women with Recurrent Urinary Tract Infections. N. Engl. J. Med 329, 753–756 (1993). [PubMed: 8350884]
- 8. Shoureshi PS, Niino C, Eilber KS. Can vaginal lactobacillus suppositories help reduce urinary tract infections? Int Urogynecol J. 2023 Nov;34(11):2713-2718. doi: 10.1007/s00192-023-05568-4. Epub 2023 Jul 1. PMID: 37392226; PMCID: PMC10682044.

#### **AUTHOR**



#### Dr. Amita Jain

Senior Consultant Urogynecology Medanta Institute of Urology & Robotic Surgery MEDANTA - THE MEDICITY HOSPITAL GURUGRAM, INDIA Member Executive Committee of GIBS (Global IC and Bladder Pain Syndrome Society) Founder Member of FEPPA (Female Pelvic Pain Association)

#### **BE THE NEXT NEWSLETTER AUTHOR**

Please send your contributions to INFO@GISBOCIETY.COM

FOR ANY ASSISTANCE **CONTACT US:** 







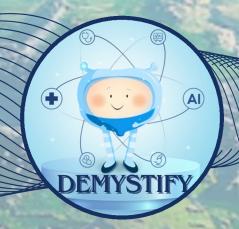


MARCH 9TH | 2:00PM HYBRID

# 

GIBS INTERNATIONAL IC/BPS PATIENT'S DAY





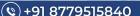
FOR BLADDER PAIN WARRIORS



IT'S THAT TIME OF THE YEAR TO TALK ABOUT IC/BPS

"YOU'RE NOT ALONE: JOIN THE GLOBAL MOVEMENT TO BEAT BLADDER PAIN!"









# GIBS 2025



## ANNUAL CONFERENCE

Celebrating a

Decidel

AUGUST 23<sup>rd</sup> & 24<sup>th</sup>, 2025

#### **HIGHLIGHTS**

Advances in IC/BPS

**Workshops** 

Orations from Subject Expert around the Globe!







Scan & Register





GRAB EARLY BIRD
OFEFER!

- 9 +91 8779515840
- gibsociety.com
- info@gibsociety.com

AN EDUCATIONAL INITIATIVE BY SWATI SPENTOSE PVT LTD

**SWATI** 

ORGANISED BY



# GIBS 2025



## ANNUAL CONFERENCE

Celebrating a



## **CALL FOR ABSTRACT**

**LAST DATE FOR SUBMISSION: MAY 01ST, 2025** 

- **Presentation Format: In Person**
- O Date: 24th August 2025
- **O** Time: 09:00AM 10:30AM IST
- **Finalist Announcement: By 10th May**
- Limited Slots Available!
- Registration: Mandatory!



SCAN & SUBMIT



**ORGANISED BY** 





GRAB EARLY BIRD
OFEFER!

- +91 8779515840
- gibsociety.com
- info@gibsociety.com



**SWATI** 

