



GLOBAL INTERSTITIAL CYSTITIS
BLADDER PAIN SOCIETY

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GIBS NEWSLETTER

Correlation Between Interstitial Cystitis/Bladder Pain Syndrome and Recurrent Vaginal White Discharge in a 35-Year-Old Woman with Subfertility and Recurrent Urinary Tract Infections: A Clinical Perspective

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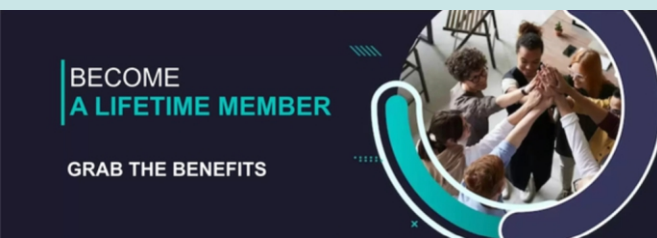
Venue : Jaipur

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Abstract

Interstitial cystitis/bladder pain syndrome (Interstitial Cystitis/Bladder Pain Syndrome; IC/BPS) is a chronic debilitating condition characterized by pelvic pain, urinary urgency, frequency, and bladder discomfort in the absence of identifiable pathology. Its coexistence with recurrent vaginal white discharge, infertility, and recurrent urinary tract infections (Urinary Tract Infection; UTIs), particularly due to Klebsiella, presents a multifactorial diagnostic and therapeutic challenge. This article explores the potential interrelationship between these conditions in a 35-year-old woman, emphasizing immunologic, microbiologic, gynecologic, and urologic overlaps.

Introduction

Women presenting with chronic pelvic symptoms often traverse multiple specialties before receiving a definitive diagnosis. In reproductive-age women, symptoms such as recurrent urinary symptoms, persistent white vaginal discharge, infertility, and chronic pelvic pain may initially suggest isolated gynecological or infectious pathology. However, when standard treatments fail, broader syndromic conditions like IC/BPS must be considered. The described patient: 35 years old Subfertility – D & C done in 2017 for incomplete abortion (6 weeks missed abortion) Recurrent white vaginal discharge Recurrent culture-proven UTIs (Klebsiella) with significant post void urine. No pelvic organ prolapse Known Asthmatic with hypothyroidism undergoing treatment. Recurrent upper respiratory tract infections (Upper Respiratory Tract Infection) This constellation raises suspicion for a chronic inflammatory mucosal disorder with overlapping pelvic floor and immune dysfunction.

1. Interstitial Cystitis/Bladder Pain Syndrome and Recurrent UTI Mimicry IC/BPS frequently mimics recurrent UTI because patients report: urgency frequency dysuria suprapubic pain However: urine cultures are often negative in pure IC/BPS repeated antibiotic exposure may worsen symptoms by altering the microbiome. In this patient, recurrent positive Klebsiella cultures suggest: true recurrent bacterial cystitis, or secondary infection superimposed on a chronically inflamed bladder. Chronic urothelial inflammation in IC may: impair the glycosaminoglycan (GAG) layer, increase bacterial adherence, predispose to recurrent infection. Thus, IC may be both a consequence and perpetuator of recurrent UTIs.

2. Association Between White Vaginal Discharge and IC/BPS Persistent white discharge may indicate: Vaginal dysbiosis Repeated

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antibiotics for UTI often cause: loss of Lactobacillus dominance recurrent Bacterial Vaginosis recurrent Vulvovaginal Candidiasis These conditions can: irritate periurethral tissues trigger urinary urgency and burning mimic IC flares. Shared pelvic neuroinflammation The bladder, vagina, and uterus share pelvic nerve pathways. Cross-sensitization means: chronic vaginal inflammation can amplify bladder pain bladder inflammation can increase vaginal discomfort/discharge sensation. This “viscero-visceral cross-talk” is increasingly recognized in IC..

3. Infertility Link Possible mechanisms linking infertility with IC/BPS include: Chronic pelvic inflammation Long-standing inflammation may affect: tubal function endometrial receptivity ovarian microenvironment Endometriosis overlap Endometriosis coexists in up to 30–50% of IC patients. Shared symptoms: chronic pelvic pain dyspareunia infertility bladder pain This should be actively ruled out. Sexual dysfunction IC causes: Dyspareunia fear of intercourse reduced conception opportunities.

4. Role of Klebsiella Klebsiella pneumoniae is uncommon compared with Escherichia coli and suggests: biofilm formation incomplete eradication resistant infection possible hidden reservoirs (periurethral/vaginal/gut) Biofilm can perpetuate: recurrent UTI chronic bladder inflammation IC symptom amplification. Evaluation should include: repeat culture with sensitivities biofilm consideration post-treatment test-of-cure.

5. Immune Dysregulation: Asthma and Recurrent URTIs The history of: Asthma recurrent URTIs suggests systemic mucosal immune vulnerability. IC has been associated with: mast cell activation allergic disorders autoimmune tendencies Possible common pathway: mast-cell mediated inflammation This may explain: bladder pain recurrent vaginal irritation respiratory hypersensitivity. Consider evaluation for: Mast Cell Activation Syndrome (selected cases) immunoglobulin deficiency atopy markers.

6. Absence of Pelvic Organ Prolapse No prolapse reduces the likelihood of: incomplete bladder emptying from mechanical causes structural cause for recurrent infection This supports a functional/inflammatory etiology rather than an anatomical one. Recommended Diagnostic Workup Urological cystoscopy ± hydrodistension urine PCR / enhanced culture post-void residual bladder diary Gynecological vaginal swab microscopy/culture STI screening transvaginal ultrasound consider diagnostic laparoscopy for endometriosis Immunologic serum IgA/IgG/IgM eosinophils serum tryptase (if mast-cell suspicion) Microbiological repeat urine culture vaginal microbiome assessment antibiotic resistance profiling Husband semen culture Management Approach Multidisciplinary treatment is essential:

For IC/BPS

- bladder diet
- pelvic floor physiotherapy
- oral Pentosan Polysulfate Sodium (where appropriate)
- intravesical therapy

For recurrent Klebsiella culture-guided antibiotics evaluate for biofilm Consider suppressive therapy only if indicated

For recurrent vaginal discharge treat underlying vaginitis restore vaginal microbiome probiotics (evidence evolving)

Conclusion In this patient, recurrent white discharge, infertility, and culture-positive recurrent Klebsiella UTIs may not represent isolated problems but rather interconnected manifestations of a chronic pelvic inflammatory syndrome associated with Interstitial Cystitis/Bladder Pain Syndrome. Shared neuroinflammation, microbial dysbiosis, and immune dysregulation likely create a self-perpetuating cycle. Recognition of this overlap is critical to avoid repeated ineffective antibiotic treatment and to improve both quality of life and reproductive outcomes. The patient's husband underwent detailed examination and semen culture to rule out any sexually transmitted aetiology of recurrent white discharge. Concomitant treatment of both partners is essential to treat recurrent/persistent white discharge with emphasis on ruling out bacterial vaginosis. "The coexistence of recurrent culture-proven urinary infections, chronic pelvic pain, and persistent vaginal symptoms suggests a multifactorial interplay involving urinary microbiome alteration, chronic urothelial inflammation, pelvic cross-sensitization, and mucosal immune dysregulation in patients with IC/BPS."



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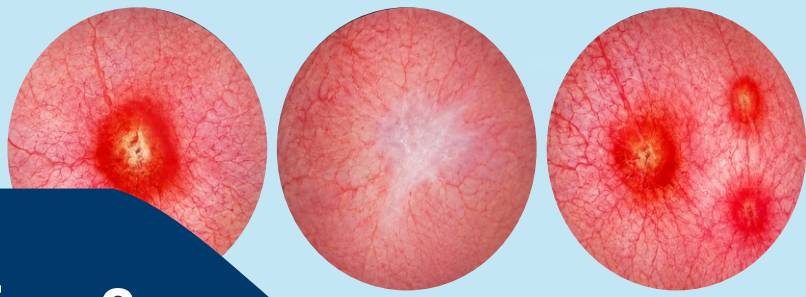
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GIBS Periodic Case-Based Discussion on Pain Relief in a Case of Hunner's Ulcer IC/BPS Patient

Topic: Pain Relief in a Case of Hunner's Ulcer IC/BPS Patient

A global educational webinar featuring international experts discussing evidence-based pain management, intravesical therapy, and real-world approaches for Hunner's Ulcer IC/BPS.

Date : 19 June, 2026

Time : 7:30 PM - 8:30 PM IST

The Webinar Ran From 7:30 PM To 8:30 PM IST, One Interactive Session. One Challenging Case. Practical Insights on Hunner's Ulcer in IC/BPS Patient & Pentosan Polysulfate Therapy.

Webinar Leadership

Dr. Vikky Ajwani

Led the session and moderated the case-based discussion.

Scientific Presentation

Dr. Rajesh Taneja

Presented on **Intravesical Instillation of Pentosan Polysulfate** for IC/BPS pain management.

Case Presenter

Dr. Vikky Ajwani

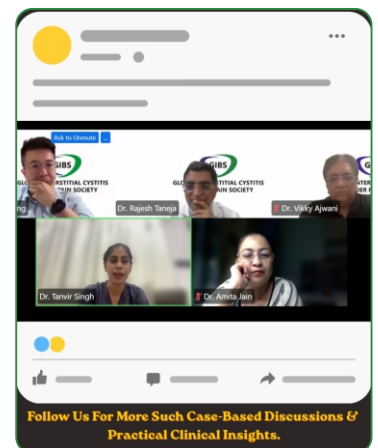
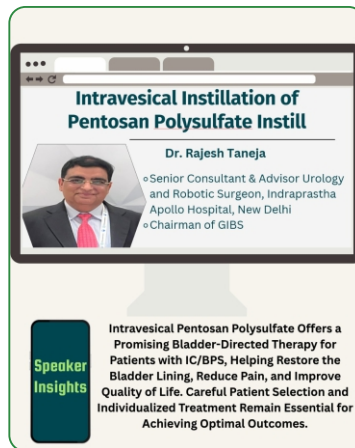
Presented a challenging Hunner's Ulcer IC/BPS case for expert discussion.

Expert Panel Discussion

Dr. William Ong, Dr. Ankur Sharma, Dr. Sakineh Hajebrahimi, Dr. Tanvir Singh, Col. Dr. Amit Shah & Dr. Amita Jain shared practical insights and treatment strategies.

Key Learning Message

Focused on evidence-based pain relief, intravesical therapy, and multidisciplinary management of Hunner's Ulcer IC/BPS.



Acknowledgement

GIBS Thanks all faculty, panelists, & participants for making this session A meaningful global learning experience.

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