Abstract #589

Dilemma Of A Urogynaecologist: Treating The Tri-Facta Of Voiding Dysfunction, Recurrent Uti And Interstitial Cystitis/Bladder Pain Syndrome

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INTRODUCTION

- Interstitial cystitis/bladder pain syndrome (IC/BPS) is defined as "An unpleasant sensation (pain, pressure, discomfort) perceived to be related to the urinary bladder, associated with lower urinary tract symptoms(frequency,urgency) of more than six weeks duration, in the absence of infection or other identifiable causes. [1].
- The diagnosis is made clinically by exclusion of confusable diseases that could mimic the clinical syndrome, including concurrent urinary tract infection (UTI) [2]
- Repeated episodes of UTI results in multiple insults to the urothelium. (3)
- While rUTI has not been proven to be a direct etiological factor for Interstitial Cystitis/Bladder Pain Syndrome(IC/BPS), urothelial barrier disruption has been a known pathophysiology.
- In women with voiding dysfunction, impaired bladder emptying increases the susceptibility to bacterial colonization and subsequent UTI.

AIM

Elaborate that an untreated or undiagnosed voiding dysfunction leads to recurrent urinary tract infections, that in turn develops into IC/BPS and can be a conundrum for the clinicians to treat

MATERIAL & METHODS

- **Five women** were studied
- Duration- June 2023 to May 2024
- Presenting symptoms : pain/unpleasant sensation associated with bladder filling or urination, LUTS of both storage & voiding symptoms, & negative Urine culture
- History of 4-5 episodes of Culture positive UTI over past 20 months
- Cystoscopy done & diagnosis of IC/BPS made
- Intravesical drug cocktail regimen started
- During treatment all patients developed 1-2 episodes of UTI with flare of symptoms
- After treatment of UTI, Urodynamic study done
- Patients had dysfunctional voiding/ PBNO
- MCU & TPU ruled out outflow tract & bladder neck obstruction & vesico-ureteric reflux
- Addition of treatment for voiding dysfunction along with pelvic floor rehabilitation was initiated.

DATA COLLECTION (Based on the PICO study model**)**

- Sociodemographic parameters noted were,

Age	BMI	Parity
Menopausal status & use of vaginal estrogen cream		
Relevant medical or surgical history, specially prolapse/ incontinence surgeries		

- Clinical parameters noted were,

Various lower urinary tract symptoms(LUTS)	Number of UTIs
Presence of any genitourinary anomalies	Prolapse staging
Any significant post-void residue on pelvic scan	
UDS : Cystometry : Bladder capacity,Detrusor activity PFS : Pdet Qmax, PVR, Voiding pattern, EMG activity	
Transperineal Ultrasound & Micturating Cystourethrogram	
Symptom & QoL scores (ICIQ-LUTS-LF, ICIQ-BOTHER, UDI6, UIQ7, PGI-I, ICIQ-SATISFACTION)	

FINDINGS

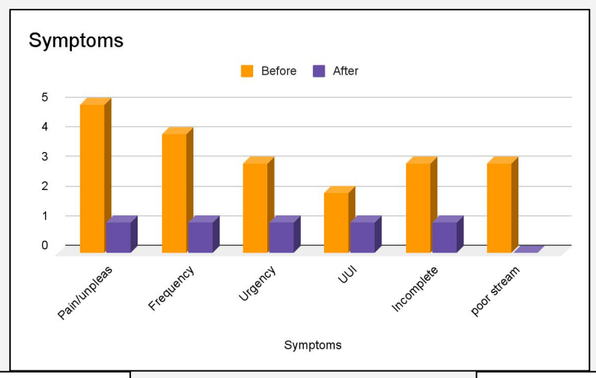
Age(mean)	59.9 ± 10.3 years
BMI(Mean)	25.8 ± 2.3 kg/m^2
Parity(median)	2 (2 to 2)
Menopausal state	60% (3/5)
Vaginal E2	60% (3/5)

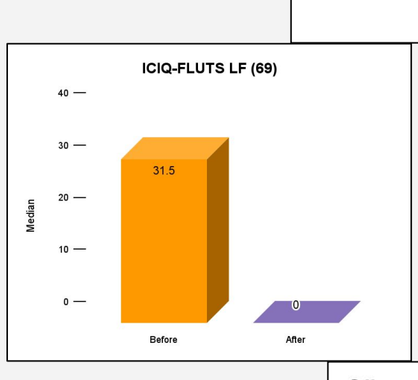
Sexual activity	60% (3/5)
Previous hysterectomy	40% (2/5)
Previous TOT	20% (1/5)
POP (more than stage 1)	0

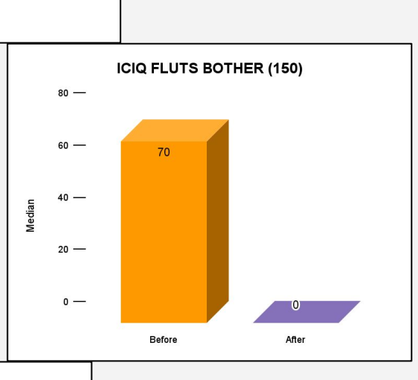
Mean number of UTI at presentation	2.8 ± 0.84
PVR (Median - IQR) on Uroflowmetry	170 (110 - 350) ml
Bladder capacity (Mean ± SD)	328 ± 58.1 ml
Abnormal Detrusor activity	0
Pdet Qmax (Mean ± SD)	42.6 ± 12 cm of H2O
PVR (Median - IQR) on PFS	190 (150 - 360) ml
Dysfunctional Voiding (Raised EMG activity)	3/5 (60%)
PBNO	2/5(40%)
Vesicoureteric reflux (MCU)	0
Anatomical Bladder neck Obstruction (TPU)	0
Follow - up	6 to 9 months

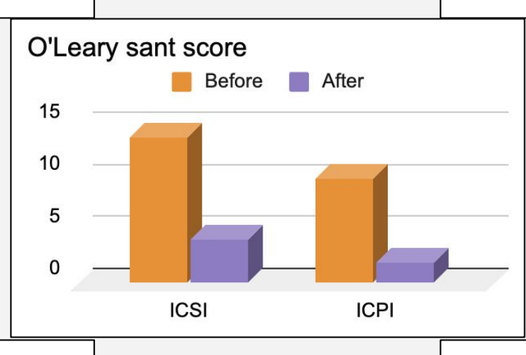
RESULTS

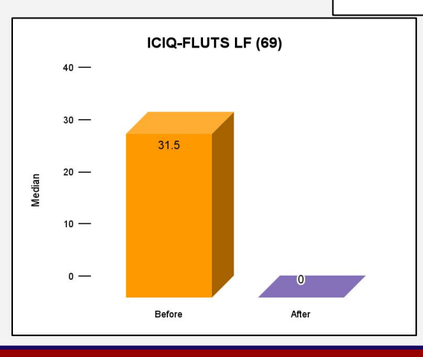
- Each of the patients were begun with treatment for IC/BPS but contracted UTI during the course of treatment, and finally had significant improvement when treatment encompassed management of their voiding dysfunction.
- Statistically significant reduction in all the symptoms was noted
- **ICIQ satisfaction - 22.5**
- **PGI- I - 2 (much better)**

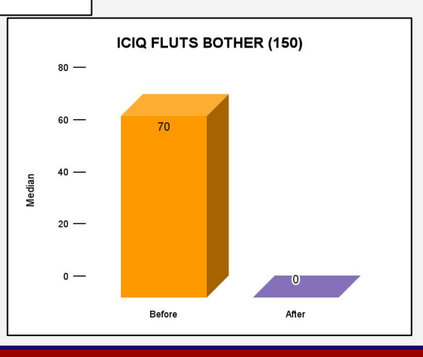












CONCLUSION

- IC/BPS and rUTI are two of the very difficult clinical entities to treat and an undiagnosed pathology of voiding dysfunction can make their management even more elusive.
- The approach to manage such cases should be a symptomatic management of IC/BPS, long term prophylaxis for rUTI & careful evaluation to clinch the diagnosis of voiding dysfunction as the main culprit of the clinical trifacta.

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