

Introduction:

- Interstitial Cystitis/Painful Bladder Syndrome (IC/PBS) is commonly associated with middle-aged women.
- This case presents a unique scenario: IC in a 10-year-old girl.

Background:

One of the common causes of pelvic pain in the general female population is Interstitial Cystitis/Painful Bladder Syndrome (IC/PBS). Typically diagnosed in middle-aged women with urinary frequency and urgency, and suprapubic pain or discomfort, generally relieved or diminished by voiding. The hallmark symptom of IC/PBS is chronic bladder pain without an associated underlying infection. Hence, IC/PBS diagnosis is one of the exclusion criteria predicated on negative standard urine culture. With a presentation of chronic bladder pain and urinary tract infection at a very young age, multiple physicians are consulted for many years before a correct diagnosis of IC is made.

Case Scenario:

- A 10-year-old Asian girl presented with chronic urinary symptoms.
- She had been seen by multiple primary care providers.
- Multiple misdiagnoses and ineffective antibiotic treatments.
- Referred to a urologist for further evaluation.

Patient Findings Suggestive of IC:

History	Pain, urgency, frequency, nocturia, elevated PUF questionnaire score (15).
Physical exam	Suprapubic, bladder neck tenderness, Positive KCl and anesthetic relief tests.
Voiding diary	Decreased voiding volume (<200 cc), increased frequency (>6 voids per day)
Cystoscopic findings	Glomerulations, low bladder capacity, bleeding on hydrodistention, Hunner's ulcer

Management and Outcome:

- Conservative Management with Dietary modifications, bladder training, and Pelvic floor exercises
- Pharmacological Interventions with Pain Medications and Elmiron (Pentosan Polysulfate Sodium)
- Bladder Instillations: Intravesical treatments involving instillation of medications like dimethyl sulfoxide (DMSO) or heparin provided her some relief that lasted only a few weeks
- Biological Therapy: Botulinum toxin injections into the bladder wall transiently relieved the symptoms for a few months.

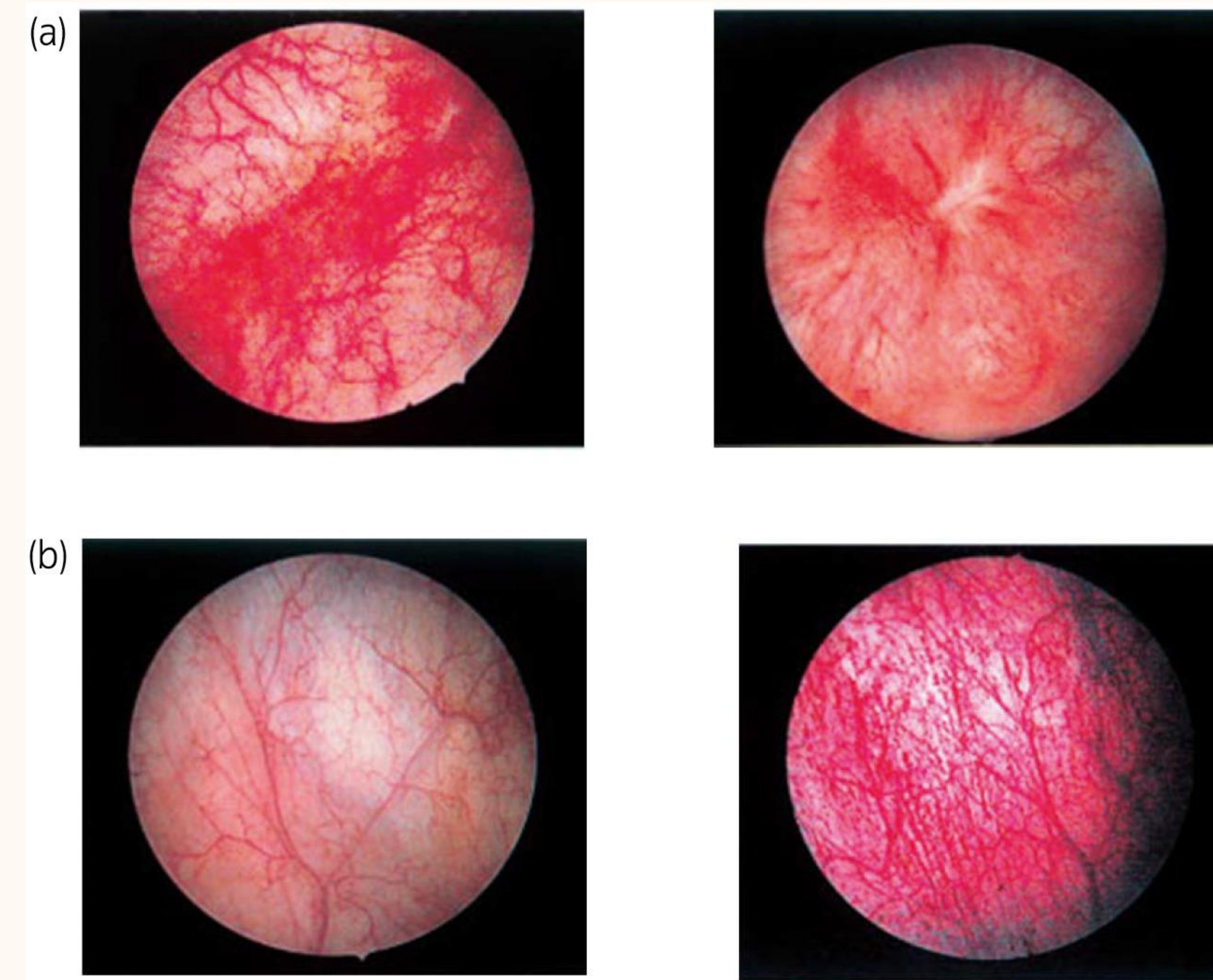


Figure 1 : (a) Hunner lesion. Hunner lesion is a reddish mucosal lesion lacking in the normal capillary structure associated with converging vessels, covering fibrin clots or scars in the vicinity. (b) Mucosal bleeding after distension. The apparently normal bladder (left) undergoes bleeding from the multiple sites during emptying after hydrodistension (right)
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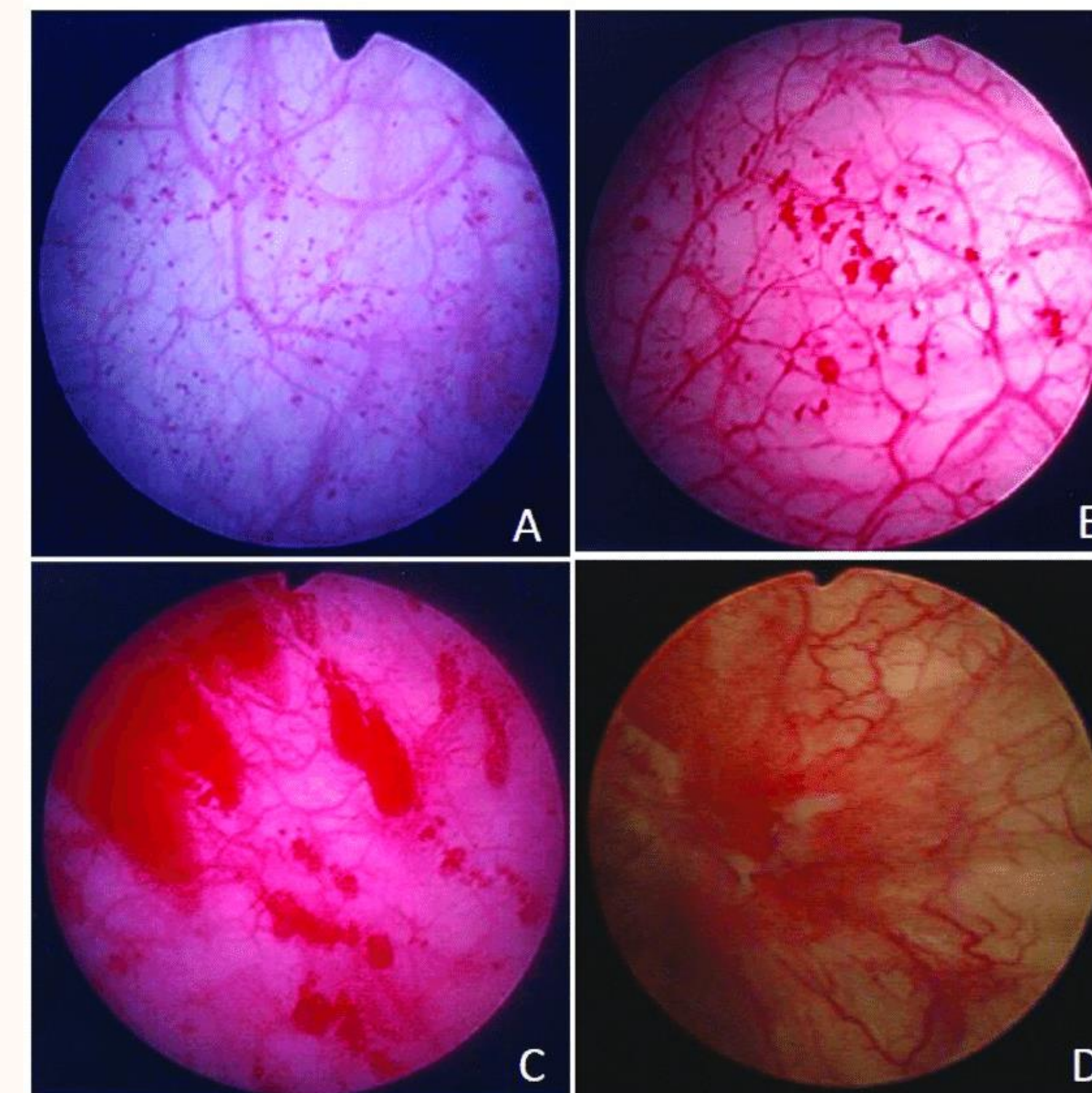


Figure 2 : Cystoscopic findings of patients with interstitial cystitis/bladder pain syndrome. (A) Grade 0-1 glomerulation with petechiae that developed after hydrodistention, (B) grade 2 glomerulation with diffused hemorrhage, (C) grade 3 glomerulation with splotch hemorrhage and occasional mucosal fissure, and (D) Hunner's lesion, which can be commonly observed without anesthesia or hydrodistention.

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Purpose:

- To understand the symptoms, diagnosis, and prevalence of IC and recognize the importance of early screening in children and young teenagers.
- To learn about the diagnostic techniques, such as the elevated pelvic pain and urgency/frequency (PUF) questionnaire score and cystoscopy with hydrodistention, used for Interstitial Cystitis.
- To appreciate the challenges in diagnosing Interstitial Cystitis in younger females and the need for future efforts to establish it as an entity in children.

Discussion:

- Pediatric IC is Real:
 - IC is not exclusive to middle-aged woman and can manifest in children and teenagers. Early recognition is crucial.
- Diagnostic Challenges Persist: Symptoms overlap with UTIs and other conditions.
 - IC should be considered in young patients with chronic urinary symptoms.
- Importance of Comprehensive Evaluation:
 - Objective tests are essential for diagnosis.
 - PUF questionnaire, potassium sensitivity test, cystoscopy, and biopsy.
- Hunner's Ulcer as Diagnostic Clue:
 - Hunner's ulcers are diagnostic of IC.
 - Cystoscopy can confirm diagnosis and identify specific lesions.
- Implications for Future Research and Awareness:
 - Further research is needed on pediatric IC.
 - Increased awareness among healthcare providers.
 - Early diagnosis improves the quality of life for young patients.

Conclusion:

- Pediatric IC challenges traditional stereotypes.
- Comprehensive evaluation and awareness are crucial.
- Early diagnosis and intervention improve the prognosis.
- Research should explore pediatric IC further.

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