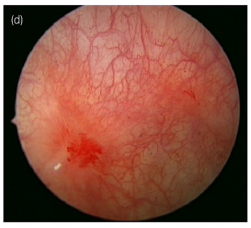
Dr Rebecca Young

What is bladder pain syndrome (BPS)/interstitial cystitis?



Bladder pain syndrome (previously known as interstitial cystitis) is a clinical and cystoscopic diagnosis involving pain in the bladder or pelvis, associated with severe urinary frequency, urgency and nocturia. It can only be diagnosed after excluding 'confusable disorders' such as urinary tract infection, pudendal neuralgia and vulval pain.

Patients often have severe pain with a sterile urine culture. Due to its low prevalence, they often see multiple clinicians prior to a diagnosis and treatment. Pain is frequently triggered by bladder filling and relieved by urination. Nocturia is common due to a reduced bladder capacity.

How is it diagnosed?

- Careful history and examination to exclude confusable disorders, though these can co-exist e.g. endometriosis, levator hypertonicity.
- A bladder chart: typically demonstrates small volume voids with short voiding intervals.
- Exclusion of urinary tract infection.
- Cystoscopy under general anaesthetic using a standard technique and by those experienced in diagnosis:
  - Must be under GA as the bladder should be filled to its maximum capacity.
  - May reveal the presence of Hunner's lesions (red mucosa with small vessels radiating to a central pale scar).
  - Refill cystoscopy often demonstrates glomerulations, though this is not diagnostic.
  - May be accompanied by a biopsy of bladder mucosa with mast cell staining (an associated histological feature).

Why does it occur?

- There is evidence of an altered immune response as well as increased permeability of the urothelium due to damage to the GAG layer.
- The full aetiology is unclear and ongoing research is needed.

What is the initial management?

- Consider BPS/IC in patients with symptoms and refer if there is unexplained bladder pain.
- Patient education and behavioural modification e.g. timed voiding, appropriate fluid intake to avoid concentrated urine. Patient information is available at www.ichelp.org
- Dietary changes: an oxalate free diet has shown some benefit. Acidic food and drink, coffee, spicy food or alcohol may aggravate symptoms, though this varies.
- If co-existing hypertonicity of the pelvic floor pelvic floor therapy and Thiele massage can reduce pain.
- Treatment of stress and depression which may co-exist due to the impact of the disease.
- Amitriptyline, imipramine, antihistamines.

What urogynaecology management options are available?

- Cystoscopy and hydrodistension can provide relief but also excludes other diagnoses.
- Cystoscopic fulguration or diathermy of Hunner lesions has been shown to improve symptoms.
- Intravesical injection of the corticosteroid triamcinolone.
- Intravesical instillations e.g. DMSO (dimethyl sulfoxide), often given along with a mix of heparin, lidocaine or steroid.
- Sodium pentosan polysulfate (Elmiron) an oral treatment.
- Oral cyclosporine.
- There may be benefit of intravesical botulinum toxin for select patients, however there are limited studies so far.
- Alternative bladder instillations may be available in a research setting.
- Rarely reconstructive surgery is required in cases where all other options have failed.

Reference

1. Homma Y, Akiyama Y, Tomoe H, Furuta A, Ueda T, Maeda D, et al. Clinical guidelines for interstitial cystitis/bladder pain syndrome. Int J Urol 2020, Apr 14;27(7):578-89.

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