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Interstitial Cystitis/Bladder Pain Syndrome/Painful Bladder Syndrome

Background

Interstitial Cystitis (IC) is a chronic pelvic pain condition that may affect up to 5 in 1000 people. Women are 10 times more likely to be affected than men. Because IC symptoms are similar to some other conditions such as urinary tract infection, many IC sufferers can be misdiagnosed for many years.

The cause of IC is not known but it is believed that a particular event (such as infection, surgery or trauma) may cause bladder inflammation (cystitis) and this cystitis, in turn, leads to thinning of the protective glycosaminoglycan (GAG) layer within the bladder that lies in contact with the urine. Thinning of the GAG layer allows urine to cause further inflammation. Nerves in the bladder then stimulate nerve messages to the spinal cord which leads to further stimulation of nerves in the bladder, including pain nerves that are usually dormant. This upregulation or wind-up process causes further and further inflammation even when the original cause is no longer present.

Symptoms

The commonest symptoms of IC are pain, urinary urgency and urinary frequency. Incontinence is uncommon. IC sufferers often experience flare-ups triggered by certain food or drink, sexual activity, menstruation or emotional stress. Common dietary triggers are caffeine, alcohol, acidic food, spicy food, tomatoes, strawberries or chocolate but many potential triggers exist.

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IC often occurs in people with Irritable Bowel Syndrome, vulvodynia, endometriosis, fibromyalgia and autoimmune conditions such as lupus and Sjogren's syndrome.

Tests

There is no specific test that will diagnose IC.

However, if there are symptoms of IC, urine will be tested to check for infection and the possibility of cancer.

Cystoscopy and hydrodistension may be done to determine if the bladder has the characteristics of IC. Cystoscopy is a procedure to inspect the bladder with the use of a telescope. Hydrodistension is a process to fill the bladder with fluid to its full volume under general anaesthetic. Patients with IC may have smaller bladder volumes, bleeding of the bladder lining or bladder ulcers (Hunner's ulcers). A biopsy of the bladder may be done at the time of cystoscopy.

Treatment and success rates

The treatment of IC depends on the individual's preferences and response to various therapies but can be broadly be considered as behavioural, medication or procedural.

Behavioural

- Avoidance of triggers
- Pelvic floor relaxation
  - Yoga, tai chi, Pilates
  - Pelvic floor physiotherapy
- Meditation
- Counselling
- Support groups

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Medication

- Tablets
  - Endep (Amitriptyline)
  - Lyrica (Pregabalin)
  - Neurontin (Gabapentin)
  - Elmiron (Pentosan)

- **Intravesical (placement of fluid into the bladder)**
  - DMSO (Dimethyl Sulfoxide)
  - iAluril
  - Heparin
  - Lignocaine

Procedures/Surgery

- Cystoscopy and hydrodistension
- Cystoscopy and fulguration of Hunner's ulcers
- Botox
- Neuromodulation
- Substitution cystoplasty
- Diversion

Success rates of treatment

About 45% of patients who undergo education and behaviour change have a moderate to marked improvement to their symptoms.
Most medications lead to about 50-60% improvement.
Cystoscopy and hydrodistension leads to an improvement in about 65% of patients.
Cystoscopy and fulguration of Hunner's ulcers, if present, is an effective treatment and about 80% of patients find their pain is improved with this.
Botox treatment and neuromodulation each lead to improvement in about 70% of patients.