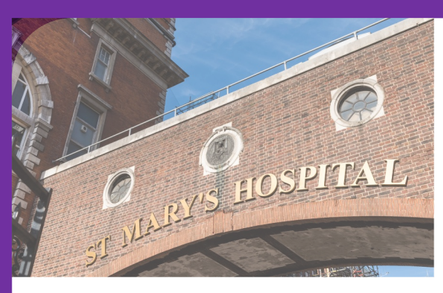

#475 Management of bladder pain syndrome: combination intravesical therapy use in a tertiary centre

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Hypothesis / aims of study

Introduction:

Interstitial Cystitis/ Bladder pain syndrome (IC/BPS) poses diagnostic and treatment challenges due to its diverse presentation. Its prevalence is estimated at up to 30% in females (1). The International Continence Society defines IC/BPS as 'Persistent or recurrent chronic pelvic pain, pressure or discomfort perceived to be related to the urinary bladder accompanied by at least one other urinary symptom such as an urgent need to void or urinary frequency'. However, diagnosing BPS amidst other differential diagnoses remains difficult, contributing to varied treatment.

Bladder instillations are recommended in IC/BPS when conservative measures, including dietary changes, stress management and oral pharmacological treatments, are unsuccessful. The breakdown of the glycosaminoglycan (GAG) layer in the bladder lining is implicated in symptoms manifested; clinical evidence supports symptom improvement by using intravesical GAG replenishment therapy to suppress inflammation and protect this layer. The advantage of bladder intravesical treatment is the lower chance of systemic side effects as the medication is directly delivered to the bladder (2). The efficacy of a combination of antibiotic, anti-inflammatory and local anaesthetic medication instilled into the bladder has yet to be previously reported using validated questionnaires pre-and post-treatment.

Objectives:

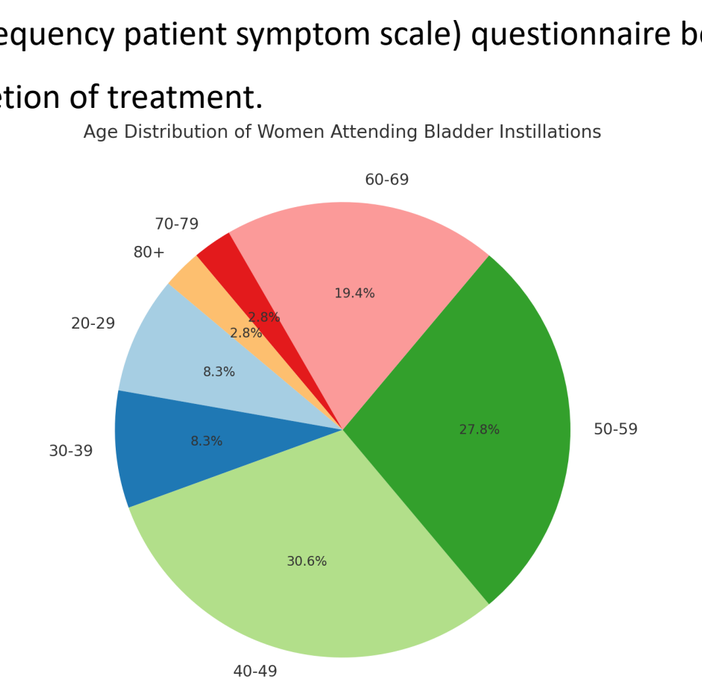
In this study, we aim to assess the effect of combination bladder instillations of heparin, sodium bicarbonate, lidocaine, gentamicin, and Ialuril® pre-fill (*hyaluronic acid, chondroitin sulphate and calcium chloride)* in women with refractory bladder pain with the use of validated symptom questionnaires.

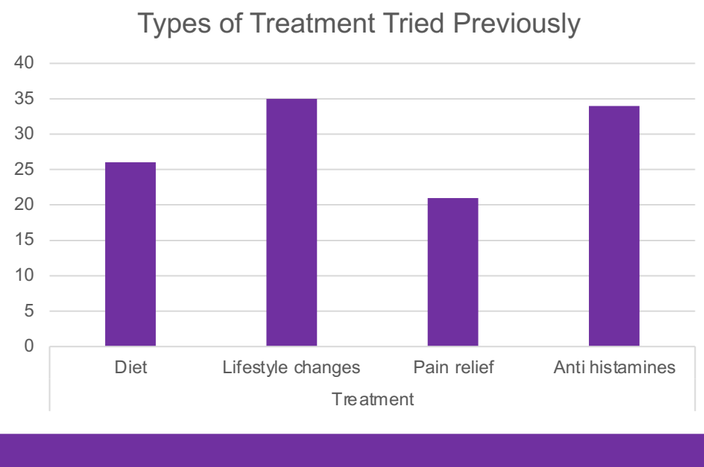
Study design, materials and methods

Methods:

We recruited women from a busy tertiary urogynaecology unit with refractory bladder pain unresponsive to other treatments. Women with urinary tract infections were excluded from our study.

All participants had undergone cystoscopy prior and had consented to a weekly treatment for eight sessions of intravesical heparin, sodium bicarbonate, lidocaine, gentamicin, and Ialuril® pre-fill (*hyaluronic acid, chondroitin sulphate and calcium chloride)*. Participants were asked to complete the O'Leary/Sant questionnaire and PUF (pelvic pain and urgency/frequency patient symptom scale) questionnaire before and after the completion of treatment.





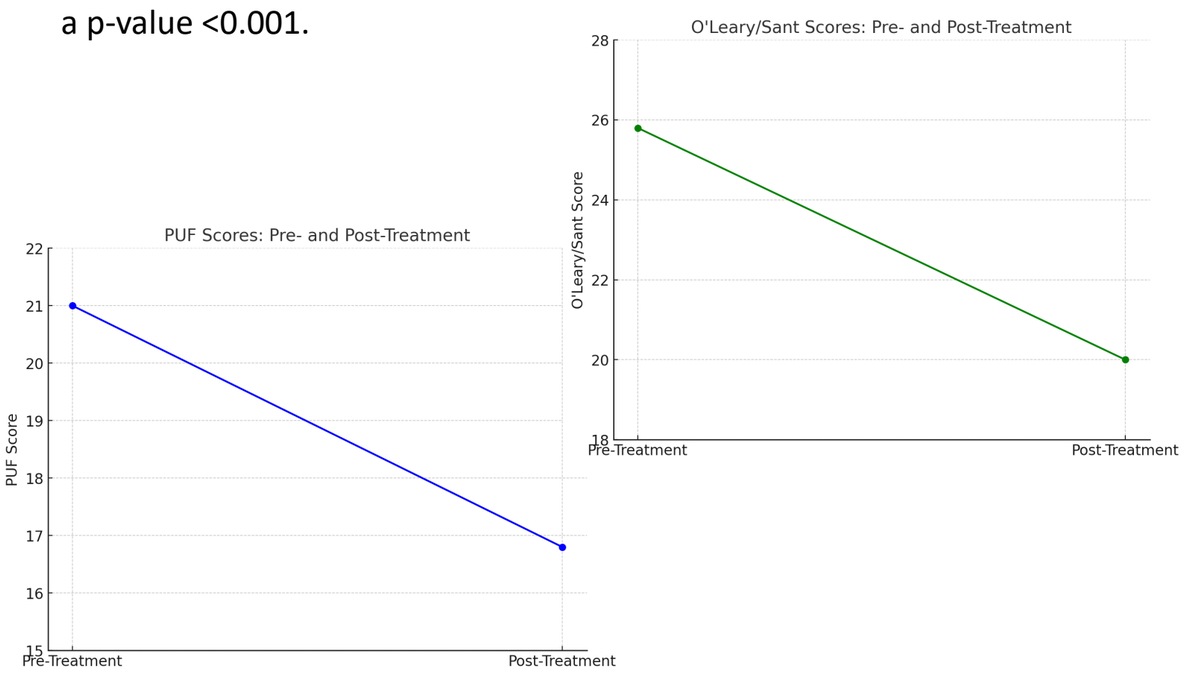
Results and interpretation

Results:

39 women attending weekly bladder instillations from 2018-2023 were asked to participate. The mean age was 50 (range 37-81), and the BMI was 27 (range 18-56). The following conservative treatment options were documented as being tried: dietary changes (67%), lifestyle changes (90%), oral analgesia (55.5%), and anti-histamine medication (87%). The patients attended 8 sessions.

The PUF mean score pre-treatment was 21; a score greater than 20 is 93% sensitive for IC/BPS. The mean PUF score decreased post-treatment to 16.8, a difference of 4.2 points. The T-test shows that this difference is statistically significant to a p-value <0.001. 41% reported a PUF score of less than 15 after completion of treatment.

The O'Leary/Sant mean score pre-treatment was 25.8, and the post-treatment mean score was 20. There was also a significant reduction in pre and post-treatment O'Leary/Sant scores of 3.66 (95% CI [2.63, 9.29]). The T-test performed shows this difference also to be statistically significant to a p-value <0.001.



Conclusions

In conclusion, our pilot study's results have found significant efficacy of multi-agent combination bladder instillations in improving bladder pain in patients with refractory IC/BPS. This is the first study looking at this combination of antibiotic, anti-inflammatory and local anaesthetic. Our findings reveal a reduction in IC/BPS symptoms within our patient group, as indicated by validated questionnaires. Notably, the improvement demonstrated greater than that of hyaluronic acid alone (3), highlighting the advantages of multi-agent intravesical treatment.

Moreover, our study illustrates the challenges faced by patients with refractory IC/BPS, many of whom had previously unsuccessful results with Ialuril® pre-fill instillations. The mean average scores of the PUF symptom questionnaires in this group were higher than those recorded in similar studies looking at symptom improvement with hyaluronic acid/chondroitin sulfate (3). Despite presenting with more severe disease, our patients experienced significant symptom improvement, emphasising the potential benefit of this treatment approach.

These findings are the start of a new era in refractory IC/BPS management, offering hope to patients for whom conservative measures have failed. Moving forward, we plan to further our understanding by comparing outcomes with Ialuril® prefill, the main bladder instillation intravesical treatment currently being given. We will also monitor the duration of symptom improvement with multi-agent therapy in this cohort of patients. This will help us get closer to providing lasting relief for those afflicted by refractory IC/BPS.

References

(1) Int Urogynecol J 2021; **34**:1677-1687
(2) Int Urogynecol J 2020; **31(7)**: 1387–1392
(3) Int Urogynecol J 2012; **23**: 1707-1713