

## A SYSTEMATIC REVIEW: THE EVIDENCE FOR CYSTODISTENSION IN PAINFUL BLADDER SYNDROME/INTERSTITIAL CYSTITIS

### Hypothesis / aims of study

There is controversy in the role of cystodistension treatment of painful bladder syndrome/interstitial cystitis. American guidance suggests a role for cystodistension in the treatment for painful bladder syndrome/interstitial cystitis as third line in the event of failed response to medical therapies and cognitive behavioural therapies. European guidance is much more guarded and highlights a lack of reliable evidence whilst recognising its widespread use. The authors evaluate the available evidence base for the use of cystodistension for painful bladder syndrome with particular reference to patient related outcomes. (1,2)

### Study design, materials and methods

In accordance with the Preferred Reporting Items for Systematic Reviews and Meta-analysis statement, a prospective search and evaluation protocol was prepared and registered with PROSPERO database (ID CRD42017053710). A review of the literature was performed using search terms cystodistension and hydrodistension of the bladder using the Pubmed database on 6 October 2016.

### Results

Fifty-four papers and abstracts were identified from 1975-2016, but only seventeen studies contained original outcome data (Table 1). Ten studies (533 patients) evaluated the outcome of cystodistension in a single arm design or used cystodistension as the control for evaluating other treatments. Seven studies (302 patients) evaluated cystodistension in combination with other agents or therapies. The best symptomatic responses reported a subjective improvement in 56% of men with moderate to severe prostatitis and 57% in patients with interstitial cystitis respectively. A single study reported a 100% improvement in O'Leary Sant questionnaires at 6 months in patients treated with cystodistension and DMSO. There were no studies that employed a validated outcome measure, either questionnaire or analogue scale, to assess the effect of cystodistension alone.

Table 1: Summary of 17 papers assessing cystodistension for painful bladder syndrome/interstitial cystitis

Article Types	Number (patients)	Mean follow up months (range)	Outcome Measure	Subjective Responses
Single Arm / Control	10 (533)	11 (1-36)	University of Wisconsin symptom score (1) Visual analogue scale (0) Subjective (9)	Response 5-64%
Adjunct to Other Therapy	7 (302)	15 (1-55)	O'Leary Sant symptom score (5) Visual analogue scale (1) Subjective (1)	No difference (2 studies) Response (5 studies) 27-100%

### Interpretation of results

Cystodistension remains popular in spite of a weak evidence base. The quality of available evidence falls below the level that would be expected of a new intervention prior to widespread usage.

### Concluding message

This review highlights the need for cystodistension to be further investigated with randomised control trials and to standardise national/international protocols.

### References

1. Homma Y, Ueda T, Tomoe H et al. Clinical guidelines for interstitial cystitis and hypersensitive bladder syndrome. *Int J Urol*. 2009; 16(7):597-615.
2. American Urology Association. Diagnosis and Treatment of Interstitial Cystitis/Bladder Pain Syndrome. In: American Urology Association Guideline. 2014. <https://www.auanet.org/common/pdf/education/clinical-guidance/IC-Bladder-Pain-Syndrome-Revised.pdf>. Accessed 5th January 2016.

### Disclosures

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