

BLADDER INSTILLATIONS WITH A COMBINATION OF HYALURONIC ACID AND CHONDROITIN SULFATE IN BLADDER PAIN SYNDROME PATIENTS: PRELIMINARY RESULTS OF A 12 WEEKS ADMINISTRATION SCHEDULE

Hypothesis / aims of study

Bladder Pain Syndrome/Interstitial Cystitis (BPS/IC) is a complex condition that requires multimodal, multidisciplinary and scaled therapeutic approach. Several studies have shown that glycosaminoglycans (GAGs) replenishment therapy improves pain, urinary symptoms and quality of life of patients with BPS/IC. Some authors found good efficacy in BPS/IC patients refractory to others therapies [1].

The primary objective of this study is to evaluate our initial experience in terms of efficacy and safety, with 12 weeks bladder instillations of a commercial combination of hyaluronic acid and chondroitin sulfate (Ialuri[®]) in patients with BPS/IC. A secondary objective was to compare efficacy in primary and refractory BPS/IC patients.

Study design, materials and methods

Retrospective, no randomized no controlled study, evaluating efficacy and safety before and after treatment (LE 4, Sackett). Patient with clinic diagnosis of BPS/IC were included. Physical exploration, VAS pain (1-10), Bladder Pain Interstitial Cystitis Symptom Score (BPIC-SS), urine culture, labstix, urine cytology, cystoscopy and urodynamic study were performed. Weekly Ialuri[®] bladder instillations were administered during 12 weeks, with no maintenance schedule. VAS pain and BPIC-SS were administered for efficacy measurement. Complications and adverse events were registered. Differences pre and post treatment were determined using Rank Wilcoxon test ($p < 0.05$). Primary treatments (patients who never have been received instillation therapy) and rescue treatments (patients previously treated with DMSO, Hyaluronic acid or onabotulinumtoxinA) results were compared.

Results

25 patients (23 women and 2 man) were included from august 2013 to February 2014. Mean age 60,4 years (31-82), median time from BPS/IC diagnosis 20 months (7,9-45,1) and median follow-up after treatment 6,3 months (4-11). 15 (60%) patients were primary treatments and 10(40%) rescue treatments. A global 24,2% VAS pain reduction was observed (VAS pre $6,6 \pm 2,5$; VAS post $5 \pm 3,3$; $p = 0.007$) and also 17,1% in BPIC-SS (BPIC-SS pre $25,1 \pm 7,3$; BPIC-SS post $20,8 \pm 10,3$; $p = 0.013$). No differences were observed in age, time from diagnosis, VAS pain and BPIC-SS between primary and rescue treatments groups. Table 1 shows results in two groups. Better results were found in primary treatment group (38% VAS pain and 27% BPIC-SS reduction) compared with rescue group (Table 2). All patients complete treatment, and no significant adverse event was observed, only one urinary tract infection treated with oral antibiotics.

Interpretation of results

Unlike other authors experience, we did not find good results in patients refractory to hyaluronic acid, DMSO and onabotulinumtoxinA. Improvements observed in responder patients were similar to results previously published in literature. GAGs replenishment therapy with weekly intravesical instillations of Ialuri[®] for 12 weeks, reduces pain VAS and BPIC-SS in BPS/IC patients, more pronounced in those not previously treated with other intravesical treatments, and with a good safety profile. No maintenance of bladder instillations was scheduled, maybe this could explain lower efficacy in refractory patients compared to other clinical experiences [1].

Concluding message

GAGs replenishment therapy with weekly intravesical instillations of Ialuri[®] for 12 weeks, reduces pain VAS and BPIC-SS in BPS/IC patients, more pronounced in those not previously treated with other intravesical treatments, and with a good safety profile. Maintenance therapy may be necessary for further improvement, especially in refractory patients.

Table 1: VAS pain and BPIC-SS differences pre and post treatment between primary and rescue groups (*Wilcoxon test*)

Group	VAS pain difference (pre-post)	BPIC-SS difference (pre-post)
Primary	2.6 ± 2.1	7.1 ± 6
Rescue	-0.4 ± 1.9	-0.3 ± 3.5
p	0.005	0.023

Table 2. Changes in VAS pain and BPIC-SS in the primary treatment group after combined HA/CS instillation (*Wilcoxon test*)

	VAS pre	VAS post	BPIC-SS pre	BPIC-SS post
Score	6.9 ± 2.2	4.3 ± 3.2	24.8 ± 5.8	18.1 ± 9.7
Reduction (%)	38%		27%	
p	0.002		0.012	

References

1. Cervigni M, Natale F, Nasta L, Padoa A, Lo Voi R, Porru D. A combined intravesical therapy with hyaluronic acid and chondroitin for refractory painful bladder syndrome/interstitial cystitis. *Int Urogynecol J* (2008) 19: 943-947

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** Retrospective comparative study, no randomization
Helsinki: Yes **Informed Consent:** No