

INTRAVESICAL HYALURONIC ACID IN THE TREATMENT OF INTERSTITIAL CYSTITIS / PAINFUL BLADDER SYNDROME

Hypothesis / aims of study

Intravesical instillation of hyaluronic acid (HA) may lead to regeneration of the damaged glycosaminoglycan layer of the bladder in patients with interstitial cystitis/painful bladder syndrome (IC/PBS). The aim of this study was to assess the effect of bladder instillation of HA to treat refractory IC/PBS patients

Study design, materials and methods

A total of 29 patients with clinical symptom of IC/PBS who had poor response or unsatisfactory to previous treatment were prospectively enrolled. Patients who had pelvic pain score ≥ 2 on Pelvic Pain and Urgency /Frequency (PUF) questionnaire and ≥ 6 on O'Leary-Sant Index Score (ICSI) were selected. All patients received cystoscopy as a baseline study and received intravesical instillations of 40mg HA diluted in 50ml saline once weekly for 4 weeks then thereafter monthly according to their symptoms. Micturition frequency per day, visual analogue scale (VAS) of pain, PUF questionnaire and ICSI were measured before and 4 weeks after HA instillation. Improvement was defined as decrease of frequency per day $\geq 25\%$ or decreased of VAS ≥ 2 . Statistical significant of changes from baseline was assessed by paired t-test.

Results

All patients were female and mean age was 58.2 ± 9.8 . They had been treated with medication, 12 patients among them received hydrodistension of the bladder, 3 patients, botulinum toxin injection to the bladder before HA instillation. Hunner's ulcers were found in 12 patients on cystoscopy. Fifteen patients (60.0%) had additional HA instillation monthly after scheduled instillation. Their baseline mean frequency was 13.9/day, VAS 6.0, 13.9 symptom score in PUF, 8.4 bothersome score in PUF, 14.6 symptom score in ICSI, 12.7 problem score in ICSI. Sixteen patients (64.0%) showed improvement after 4 times HA instillation and another 16 patients (64.0%) were treated with additional HA instillation monthly thereafter. Mean frequency per day improved from 13.9 to 11.1 ($p=0.000$). Pain and symptoms improved evaluated by VAS (-2.39 , $p=0.000$), and questionnaires: symptom score (-2.60 , $p=0.000$), bother score (-1.78 , $p=0.004$), total score (-4.57 , $p=0.001$) on PUF, and symptom score (-2.95 , $p=0.000$), problem score (-2.57 , $p=0.004$) on ICSI. There was no correlation between presence of Hunner's ulcer and symptom improvement ($p=0.141$). No side effect of intravesical HA was recorded.

Interpretation of results

Sixteen patients (64.0%) showed improvement after 4 times HA instillation. Mean frequency, pain and symptoms evaluated by questionnaires in all patients improved. No side effect of intravesical HA was recorded.

Concluding message

Intravesical instillation of HA was effective for the patients with IC/PBS who had poor response to previous treatment without side effects.

Disclosures

Funding: no **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** This study is retrospective study and we are ready to rapid IRB **Helsinki:** Yes **Informed Consent:** Yes