

IMPACT OF INTRAVESICAL HYALURONIC ACID ON SEXUAL FUNCTION OF WOMEN WITH INTERSTITIAL CYSTITIS: A PROSPECTIVE MULTICENTER STUDY ON 103 PATIENTS

Hypothesis / aims of study

Intravesical therapy with hyaluronic acid (HA) is a standard treatment for interstitial cystitis (IC), but little is known about its impact on sexual function of patients. This study aims to evaluate the changes in sexual functioning in women undergoing intravesical therapy with HA for IC.

Study design, materials and methods

A total of 103 women with cystoscopically diagnosed IC were enrolled in this prospective, multi-center, observational database study. Sexual function was evaluated using the short form of the Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire (PISQ-9) before and at 1- and 6-month treatment. The perception of bladder-related symptoms and bothers were further evaluated by Interstitial Cystitis Symptom and Problem Index (ICS/PI), and the Pelvic Pain Visual Analog Score (PP-VAS). Data were analyzed with Wilcoxon, *t*-test, and a multivariate logistic regression analysis.

Results

Mean age and duration of bladder symptoms was 43.6 ± 11.8 and 5.1 ± 5.0 years, respectively. Mean functional and anesthetic bladder capacity was 228.6 ± 70.8 and 495.6 ± 188.5 ml, respectively. The scores of ICSS, ICPS and PP-VAS were significantly (*P*<0.001) improved at 1- and 6-month treatment (Table 1). Of the 87 (84.5%) sexually active women evaluated, PISQ-9 total scores improved significantly (*P* < 0.001) from baseline (mean 18.9 ± 6.4) to 1- (20.4 ± 5.8) and 6-month (21.5 ± 5.6) treatment. Significantly improved PISQ-9 items included dyspareunia (*P*<0.001), intensity (*P*<0.001) and negative reactions (*P*=0.015) (Table 2). By a logistic regression analysis, we found the improvement in sexual functioning was significantly (*P*=0.045) correlated with the improvement in bladder symptoms along with treatment

Interpretation of results

Bladder instillation with HA successfully improved bladder-related symptoms, bothers and sexual function in IC patients.

Concluding message

Many factors affect sexual functioning in women; however, sexual function may improve along with improvement in bladder symptoms after intravesical therapy with HA for IC.

Table 1. Changes of bladder-related symptoms and bothers in IC patients undergoing intravesical therapy with HA.

	Baseline	1 month	6 months	P-value
Pelvic Pain (VAS)	6.3 ± 2.7	4.3 ± 2.5	3.3 ± 2.2	<0.001
ICSS	14.2 ± 3.8	10.3 ± 3.9	7.8 ± 4.0	<0.001
Urgency	3.5 ± 1.4	2.6 ± 1.3	1.9 ± 1.3	<0.001
Frequency	4.3 ± 1.1	3.1 ± 1.2	2.3 ± 1.3	<0.001
Nocturia	3.5 ± 1.3	2.7 ± 1.2	2.2 ± 1.3	<0.001
Bladder Pain	2.9 ± 1.7	1.9 ± 1.4	1.3 ± 1.2	<0.001
ICPS	13.0 ± 3.3	9.9 ± 3.3	8.4 ± 4.3	<0.001
Frequency	3.2 ± 0.9	2.7 ± 1.0	2.2 ± 1.2	<0.001
Nocturia	3.4 ± 0.9	2.7 ± 1.0	2.3 ± 1.4	<0.001
Urgency	3.1 ± 1.0	2.4 ± 1.1	2.0 ± 1.3	<0.001
Bladder pain	3.1 ± 1.2	2.3 ± 1.2	1.6 ± 1.2	<0.001
QoI Index (ICSS+ICPS)	26.9 ± 6.2	20.2 ± 6.9	16.2 ± 8.0	<0.001

Table 2. Changes of sexual function in IC patients undergoing intravesical therapy with HA.

	Baseline	1 month	6 months	P-value
PISQ-9 Scores	18.9 ± 6.4	20.4 ± 5.8	21.5 ± 5.6	<0.001
Behavioral/emotive Factors	6.9 ± 4.0	7.0 ± 3.7	7.3 ± 4.0	0.260
1. Desire	1.4 ± 1.2	1.4 ± 1.2	1.4 ± 1.1	0.909
2. Climax	1.8 ± 1.2	1.7 ± 1.1	1.9 ± 1.1	0.080
3. Excited	1.8 ± 1.2	1.9 ± 1.1	2.0 ± 1.2	0.108
4. Satisfied	1.8 ± 1.3	1.9 ± 1.1	2.0 ± 1.2	0.069
Physical Factors	4.8 ± 2.2	5.5 ± 1.9	5.9 ± 1.9	<0.001
5. Dyspareunia	1.9 ± 1.3	2.3 ± 1.2	2.7 ± 1.2	<0.001
6. Negative reactions	2.9 ± 1.4	3.2 ± 1.2	3.2 ± 1.1	0.015
Partner-related Factors	7.6 ± 2.6	8.2 ± 2.4	8.5 ± 2.3	<0.001
7. Erectile	3.2 ± 1.3	3.3 ± 1.1	3.4 ± 1.0	0.239
8. Premature	3.2 ± 1.2	3.3 ± 1.2	3.3 ± 1.1	0.488
9. Intensity	1.2 ± 1.1	1.6 ± 0.9	1.7 ± 1.0	<0.001

Disclosures

Funding: none **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Institutional Review Board, Mackay Memorial Hospital. **Helsinki:** Yes **Informed Consent:** Yes