

INTRAVESICAL HYALURONIC ACID TREATMENT MAY IMPROVE PAIN AND VOIDING SYMPTOMS CAUSED BY KETAMINE-ASSOCIATED CYSTITIS

Hypothesis / aims of study

Long term ketamine abuse may cause variable lower urinary tract symptoms and severe cystitis. The clinical features of ketamine associated cystitis (KC) are very similar to bladder pain syndrome/interstitial cystitis (BPS/IC) [1]. Intravesical administration of hyaluronic acid (HA) is one of the regimens for treating BPS/IC [2]. In this study, we aim to evaluate whether intravesical HA therapy is able to improve the lower urinary tract symptoms of patients with KC.

Study design, materials and methods

4 female and 1 male patients with KC who failed oral medications were enrolled in this study. Hyaluronic acid (Cystistat®) at a dose of 40 mg in a volume of 50 ml of phosphate-buffered saline was injected into the bladder on a weekly basis for 6 weeks and then monthly for a further 3 months. Response to therapy was evaluated by Visual analogue scale for pain (VAS), International prostate symptom score (IPSS), Overactive bladder symptom score (OABSS), O'leary-Sant interstitial cystitis symptom Index (ICSI) and problem Index (ICPI). Treatment efficacy was assessed by comparing the pre- and post-treatment mean scores of the five questionnaires using paired *t* test.

Results

The mean age of the patients was 22.4. The mean duration of ketamine abuse was 57 ± 20 months. After intravesical treatment of hyaluronic acid for 4 weeks, statistically significant mean decreases in VAS (from 7 to 4.4, *p*= 0.03), IPSS voiding subscore (from 16.2 to 11.6, *p*= 0.017) and ICSI (from 16.4 to 13.6; *p* = 0.016) questionnaire scores were seen. However, only ICSI constantly reduced after 4 weeks of treatment. No cases of side effects or complications were observed.

Interpretation of results

HA may temporarily reduce the pain and the voiding symptoms associated with KC after 4 weeks of treatment. Intravesical instillation of hyaluronic acid on a monthly basis may not be as effective as on a weekly basis.

Concluding message

Intravesical HA therapy may have short-term benefit for improving bladder pain and voiding symptoms in patients with KC. Large, long-term randomized studies are required to determine if there is a long-term efficacy of this therapy

References

1. Tsai TH, Cha TL, Lin CM, Tsao CW, Tang SH, Chuang FP, et al. Ketamine-associated bladder dysfunction. *Int J Urol.* 2009;16(10):826-9.
2. Kallestrup EB, Jorgensen SS, Nordling J, Hald T. Treatment of interstitial cystitis with Cystistat: a hyaluronic acid product. *Scand J Urol Nephrol.* 2005;39(2):143-7.

Disclosures

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