Abstract 476: Ketamine Cystitis: Results of a Conservative Treatment Protocol

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Hypothesis / aims of study

Ketamine cystitis is caused by a chronic recreational use of ketamine which can cause damage to the bladder wall and, at an advanced stage, to the ureteral wall. This condition remains relatively unknown, and to date, there is no French series in medical literature. Given the severity of the clinical picture, with dilatation of the upper urinary tract occurring in up to 30% of patients and an anatomical bladder capacity often less than 200 ml, several authors have proposed surgical urinary diversion. However, the reported postoperative complication rates are very high, including ureteral recurrences that can lead to stenoses extending to the renal pelvis. Therefore, an effective conservative therapeutic approach would be desirable in this very young population but data on the outcomes of conservative treatments are limited. The goal of this series was to evaluate the outcomes of a conservative treatment protocol combining hydrodistension, electrocoagulation of endoscopic lesions, trigonal and peritrigonal botulinum toxin, oral pentosan polysulfate, and addiction management.

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- Clinical presentation
  - Urinary frequency : 24 mictions/24h
  - Douleurs 100%
  - CVF : 85 ml
  - UUT dilation: 2/13 (15%)
- ER consultations : 8/13 (→16 times)

Study design, materials and methods

All patients who consulted for ketamine cystitis at a university center between December 2021 and March 2023 were included for retrospective analysis. The proposed therapeutic protocol included hydrodistension, electrocoagulation of endoscopic lesions, trigonal and peritrigonal injections of onabotulinum tox in 100 IU, oral pentosan polysulfate, and addiction management. Anatomic bladder capacity was measured during hydrodistension, which was performed at 80 cmH2O for 5 minutes under general anesthesia (GA). The primary endpoint was the Patient Global Impression of Improvement (PGII) at 3 months post hydrodistension + electrocoagulation + botulinum toxin.

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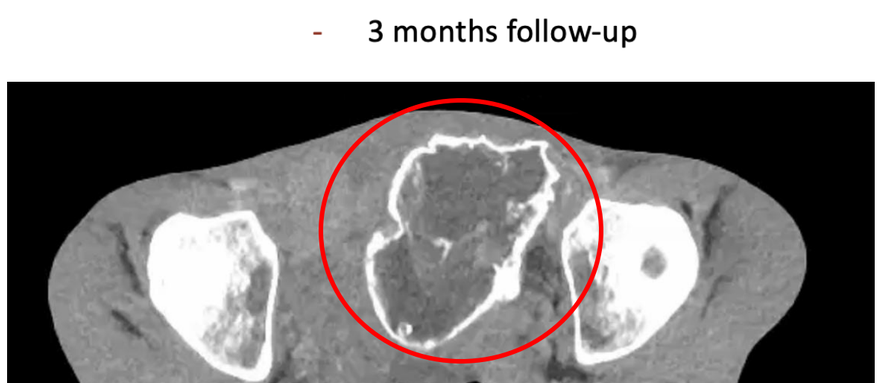
- 13 patients
- 7 M / 6 F
- Mean age: 24 y
- BMI 19
- 3 months follow-up



Results and interpretation

Thirteen patients were included in the study period, with a median age of 24 years and an average BMI of 19 kg/m^2. There were 7 men and 6 women. The median number of urinations per 24 hours was 24 pre-treatment, with an average functional bladder capacity of 85.8 ml. Two patients had bilateral dilatation of the upper urinary tract (15.4%). Eight patients had consulted the emergency department at least once (61.5%). The average anatomical bladder capacity was 216 ml during the first hydrodistension under GA.

At 3 months post hydrodistension + electrocoagulation + botulinum toxin, all patients had improved: 44.4% were very much improved (PGII=1), 22.2% were improved (PGII=2), and 33.3% were somewhat improved (PGII=3), noting that all except one were on oral pentosan polysulfate, which 88% chose to continue due to perceived benefit. The average USP HAV significantly decreased at 3 months compared to preoperative (7 vs. 16.1; p=0.01). After a median follow-up of 6 months, six patients had sought at least one new endoscopic treatment, but no surgical urinary diversion had been necessary. Despite addiction management, only one patient had been successfully weaned for more than 3 months (7.7%).

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- Treatment
  - Elmiron : 12
  - Hydrodistension 13
  - Botox Résection : 13
  - Median FBC after treatment: 216 mL

Conclusions

In this series, the first reported in France to our knowledge, a conservative treatment protocol combining hydrodistension, electrocoagulation of endoscopic lesions, trigonal and peritrigonal botulinum toxin, oral pentosan polysulfate, and addiction management resulted in improvement in 100% of patients. Larger series with longer follow-up are needed to confirm that this management could durably avoid the need for particularly morbid surgical urinary diversion in this population.

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- Follow up
  - USP clinical improvement
  - 6 retreatments
  - 1 patient withdrawal → FBC 240 mL