

KETAMINE ABUSE AND LOWER URINARY TRACT SYMPTOMS: A SURVEY FROM DRUG REHABILITATION CENTERS IN TAIWAN

Hypothesis / aims of study

Ketamine is the most commonly abused psychotropic substance among youngsters in Taiwan. Long-term ketamine use can cause chronic cystitis and severe lower urinary tract symptoms (LUTS). We conducted an in-depth epidemiological study to better understand the correlation between ketamine abuse and LUTS.

Study design, materials and methods

The survey was conducted in two private rehabilitation centers in Taiwan. Through self-administered questionnaires (OABSS, IPSS, ICSI, ICPI and VAS), records of inmates, such as gender, age, and details of using ketamine, including the way, amount, duration of using ketamine as well as symptoms of urinary tract were obtained. Data processing and statistical analysis were performed using statistical software SPSS v.17. We analyzed all kinds of relative factors causing ketamine cystitis and off factor, and established an occurrence and severity forecasting module.

Results

106 ketamine abusers completed the questionnaires, including 11 women and 95 men. LUTS occurred after using ketamine for 24.67 ± 26.36 (mean \pm SD) months. Most of them combined snoring and smoking of the ketamine. Leading symptoms included frequency (67.3%), incomplete voiding (66.3%) and nocturia (61.2%). The scores of OABSS, IPSS, ICSI, ICPI and VAS were 5.23 ± 4.37 , 13.11 ± 10.62 , 11.47 ± 6.78 , 9.92 ± 5.65 , 2.89 ± 3.48 , respectively. 79.2% of ketamine abusers admitted a history of polysubstance abuse, although none of them had taken drugs other than ketamine regularly. Smoking of ketamine was negatively correlated with symptom scores in IPSS-S, ICSI and ICPI ($P < 0.05$). OABSS significantly increased while combine using ketamine and Marijuana ($P = 0.016$). Combination with 3,4-methylenedioxy-methamphetamine (MDMA) usage significantly increased the ICPI score ($P = 0.034$).

Interpretation of results

The majority of ketamine abuse and onset of its associated symptoms occurred in teenagers and young adults. The most bothersome symptoms were storage symptoms and pain in the lower urinary tract. All the symptom scores were positively correlated with the duration of ketamine abuse. Although most of ketamine abusers combined using other recreational drugs, few of them were directly related to poor symptoms scores.

Concluding message

Ketamine abuse can induce severe storage symptoms depending on the duration of using ketamine. Snorting of ketamine may cause worsen LUTS than smoking. Combine using ketamine and certain substances may exacerbate LUTS. With this model as a platform, further prospective studies are warranted to investigate the appropriate choice of treatment for this new clinical entity

Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Institutional review board of tri-service general hospital, national defense medical center **Helsinki:** Yes **Informed Consent:** Yes