A unique service model for ketamine-associated uropathy: collaboration between HA, University, and NGOs

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Introduction
Ketamine-associated uropathy (KAU) was first reported in medical literature in 2007. To date, evidence-based recommendations on management of patients with KAU are still lacking, given the paucity of prospective clinical studies with adequate patient numbers. Funded by the Beat Drugs Fund of the SAR government, the Youth Urological Treatment Centre (YUTC) was established in Dec 2011 by the Dept. of Surgery, CUHK. YUTC provides fast-track and dedicated urological service for young patients suffering from KAU. With the support from NTEC, and its unique service model in partnership with NGOs, YUTC has unprecedentedly treated over 500 young patients since its service commencement.

Objectives
To describe the service delivery model and report the baseline characteristics of patients. To investigate the response to the first-line oral anti-inflammatory therapy.

Methodology
We conducted both a cross-sectional and a longitudinal study in a cohort of patients who were prospectively recruited at their first visit at YUTC to seek treatment for KAU. Descriptive statistics were used to characterize the clinical characteristics of the study cohort. T-test and one way ANOVA test were used for continuous data, and Chi-square test or trend test was applied for categorical data. The pre and post-treatment effect was tested with paired T-test and Wilcoxon signed-rank test. Multivariate logistic regression was performed to identify clinical covariates that were significantly associated with severity of symptoms at baseline and clinical outcomes after treatment. P values <0.05 were considered statistically significant.

Result
From Dec 2011 to Dec 2014, a total of 508 new patients with mean age 25.2 years received urological evaluation and treatment at YUTC. 55.3% were female. 75.4% were daily users. The mean duration of ketamine use and the mean amount of use were 85 months and 19.5g/week respectively. Multivariate analysis found female gender, amount of ketamine use and abstinence status at baseline were independently associated with severity of symptoms before treatment. The amount of ketamine use and successful cessation predicted the response to the first-line treatment. Conclusions: A tailor-made service model with collaboration between different stakeholders can effectively identify young patients suffering from KAU. Concentration of experience with well-designed prospective studies provide scientific evidence to guide the treatment.