Poster Abstracts

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OBSTRUCTIVE NEPHROPATHY, KIDNEY INJURY AND EMPHYSEMATOUS PYELONEPHRITIS ASSOCIATED WITH KETAMINE ABUSE

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Introduction: Ketamine, as an anesthetic agent, is increasingly abused because of its side effects, like hallucination, and dissociation. Ketamine was also known to be responsible for the development of inflammatory cystitis, hydronephrosis, and kidney injury [1, 2]. We presented a young man, with all the upper complications, having emphysematous pyelonephritis and septic shock.

Case Report: A 36-year-old man with a history of ketamine abuse presented with gradually onset of abdominal pain. Vital signs showed a body temperature of 38.3 centigrade, a heart rate of 68, a respiratory rate of 20, a blood pressure of 126/68. Bilateral costo-vertebral tenderness and diffuse tenderness of abdomen were noted. Laboratory studies revealed an impaired renal function (Urea 77 mg/dL, creatinine 5.0), pyuria (WBC > 100/HPF), an elevation of white blood cell count and C-reactive protein. A non-contrast-enhanced tomography of abdomen revealed no hollow organ perforation, but bilateral hydronephrosis with emphysematous pyelonephritis. Genitourinary surgeon performed bilateral pig-tail nephrostomy. Ureteroscope done later revealed bilateral stricture at upper part of the ureter. The patient recovered uneventfully.

Discussion: Ketamine metabolites may deposit in ureters, and cause following hydronephrosis [3]. In our case, the hydronephrosis lead to acute renal injury, urosepsis and emphysematous pyelonephritis. An accurate diagnosis from proper image and a prompt nephrostomy were the best treatment for the patient.

1. Shahani, R., et al., *Ketamine-associated ulcerative cystitis: a new clinical entity.* Urology, 2007. **69**(5): p. 810-2.
2. Chu, P.S., et al., *'Street ketamine'-associated bladder dysfunction: a report of ten cases.* Hong Kong Med J, 2007. **13**(4): p. 311-3.
3. Selby, N.M., et al., *Obstructive nephropathy and kidney injury associated with ketamine abuse.* NDT Plus, 2008. **1**(5): p. 310-2.