

Abstract Type : Oral

Abstract Submission No. : OR-1540

Clinical characteristics and Outcomes of obstructive uropathy

Bong Gyun Sun¹, Jihyun Yang¹, Se Won Oh¹, Myung-gyu Kim¹, Shin Young Ahn², Gang Jee Ko², Jin Joo Cha³, Sang-Kyung Jo¹

¹Department of Internal Medicine-Nephrology, Korea University Anam Hospital, Korea, Republic of

²Department of Internal Medicine-Nephrology, Korea University Guro Hospital, Korea, Republic of

³Department of Internal Medicine-Nephrology, Korea University Ansan Hospital, Korea, Republic of

Objectives: Urinary tract obstruction (UTO) is a common clinical problem. Unlike the pediatric population in which congenital anomalies of urinary tract account for a majority of UTO and contribute to end-stage renal disease (ESRD), etiologies, clinical manifestation and outcome in adult UTO remain uncertain.

Methods: This is a Multi-center, a retrospective study analyzing 1,711 patients undergoing percutaneous nephrostomy (PCN) from 2001 to 2015.

Results: The most common cause of UTO was malignancies (55.6%) followed by urolithiasis (28.5%) and others. Patients with UTO caused by malignancies were older, had more advanced stage acute kidney injury (AKI) and higher mortality rate, while those with urolithiasis had a higher prevalence of hypertension, diabetes, cardio-cerebro-vascular diseases. Eighty-two percentage of patients had AKI and 15.2% of patients needed temporary dialysis. Malignancy, higher leukocyte count, uric acid level and lower total CO₂ level were independently associated with AKI. Among patients with AKI, 40.3% patients showed a renal functional recovery on day 7 after PCN. Older age and lower hemoglobin level were independent factors predicting a nonrecovery. During the median follow up 20 months, the overall mortality rate was 33.9% with the highest rate in malignancy-associated UTO (51.9%), followed by other causes (15.9%) and urolithiasis (8.8%). Stage 3 AKI and lower albumin level were independent predictors of mortality only in non-malignant cause UTO. The presence or severity of AKI did not affect the mortality in malignancy-associated UTO.

Conclusions: Upper UTO in adults is mainly caused by malignancies, urolithiasis and substantially contribute to AKI and mortality. Factors associated with mortality vary according to different etiologies of UTO and stage 3 AKI is an independent risk factor leading to increased mortality only in non-malignant causes of UTO. A larger prospective study of patients with UTO needs to be done to understand better and also to develop strategies for optimal management UTO.