



PP10

Accuracy of retrograde pyelography in the evaluation of the renal collecting system

H. Thummar¹, L. Evopodo², K. Usama¹, M. Gupta¹

¹MT Sinai Health System, St Luke Roosevelt Hospital, New York, NY, USA

² Columbia University, New York, NY, USA

Introduction/Objective: Fluoroscopic retrograde pyelography (RPG) is believed to be highly sensitive for the diagnosis of upper tract malignancy. The objective of this study was to determine the accuracy of RPG using iodinated-contrast dye in the evaluation of the upper urinary tract by comparison to retrograde ureteroscopy (URS).

Methods: We prospectively performed RPG in all patients undergoing elective URS for management or surveillance of carcinoma or urolithiasis at our institution between February 2014 and May 2014. RPG was performed with ureteral catheterization and instillation of either a 50% mixture of saline and iodinated-contrast (contrast) or sterile water and contrast. URS evaluation of the upper tract was subsequently performed to confirm the actual anatomy of the collecting system. The degree of hydronephrosis, as well as number and location of calyces were recorded.

Results: 54 patients (34 Female and 20 male) with an average age of 57 years (22-82yrs) were included in the study. There were no statistically significant difference between the number of upper and mid-pole calyces identified on RPG and URS. However, significantly more lower-pole calyces were missed by RPG compared to URS. This difference was only seen in patients with moderate to severe hydronephrosis.

Conclusions: RPG might be less accurate for evaluation of lower-pole calyces in patients with moderate to severe hydronephrosis.

Source of Funding: None.