

OP 11

Is minimally invasive surgery safe, to treat significant upper urinary tract obstructive uropathy due to urolithiasis: Single centre experience

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Objectives: Upper urinary tract obstruction (UTO) is a urological emergency. Failure in timely intervention results in nephron loss, urosepsis and death. The objective was to assess the safety and efficacy of minimally invasive surgery in UTO.

Methods: Prospective Descriptive Study was carried out at professorial surgical unit of Sri Jayewardenepura Hospital. All patients presenting with upper tract urolithiasis from January 2014 to January 2015, with significant upper tract obstruction (moderate to severe hydronephrosis) were included. CT KUB±Urogram confirmed the obstructing calculus and the degree of hydronephrosis. Patients with significant UTO were analyzed by presentation, interventions, complications and outcome.

Results: Out of 224 patients, 25% (n=57) had significant UTO. Of them 41%, and 14% had Diabetes mellitus and chronic kidney disease respectively. Eighteen patients (32%) had UTO complicated with urosepsis and/or acute kidney injury, out of them each underwent PCN insertion (n=7) and retrograde stenting (n=7) followed by secondary ureteroscopic lasertripsy (URSL) while 4 patients underwent Primary URSL in 4±2 days. Uncomplicated UTO patients (n=39) underwent Percutaneous nephrolithotomy (n=6), primary URSL (n=23), laparoscopic ureterolithotomy (n=8) and open surgery (n=2) as definitive treatment in 32±11 days. Two patients with complicated UTO underwent nephrectomy. There were no intervention related major complications including renal loss or deaths. 95% had favourable renal recovery by 6 month of follow up

Conclusions: One in four patients who present with UTO has significant obstruction. Timely management of complicated UTO by immediate urinary diversion or decompression saves lives and kidneys. Significant UTO can be effectively managed with minimally invasive surgical techniques by careful patient selection and prioritization.