

Summary: most urological centers worldwide report a need for open surgery in only 1-5.4% of the cases. However, in developing countries, the rate of open stone surgery accounts for to up to 14%. Our study was done prospectively in El Fayoum University Hospital from march 2012 till march 2013 and it included forty cases with renal stones characteristically indicated for open surgery. The patients were evaluated pre operatively by clinical evaluation, radiological and laboratory investigations, also intra operative and post operative data were recorded .Age of the study group ranged from 1 year to 65 years (mean 43.95) 23 males &17 females. mean pre operative serum creatinine values were 1.72 mg/dl & mean post operative values were 1.08mg/dl (insignificant difference).indications for open surgery were: complex stone burden(45%), patient preference (15%),Pelviureteric junction obstruction(12.5%), Pelvic kidney(12.5%), morbid obesity (10%), PNL failure(10%), concurrent open surgery (5%), skeletal deformities (5%).

Operative techniques included: pyelolithotomy (13 cases), extended pyelolithotomy (7 cases), pyelolithotomy with multiple nephrotomis (13cases) and anatrophic nephrolithotomy (7cases) reported intraoperative complications were bleeding(20%), pleural injury(15%), peritoneal injury,(5%) and parenchymal laceration (7.5%). reported post operative complications were elevation of serum creatinine (2.5%), urinary leakage(7.5%) secondary hemorrhage(2.5%), residual stones(25%) which was treated by ESWL (7cases) & PNL(3 cases) wound infection (10%) pneumothorax (2.5%).

IN CONCLUSION: OPEN SURGERY IS STILL VIABLE LINE OF MANAGEMENT OF COMPLEX RENAL STONES, THAT CANNOT BE REMOVED VIA REASONABLE NUMBERS OF LESS INVASIVE PROCEDURES AS PNL AND / OR ESWL PROCEDURES.