Endourological Procedures for the Management of Urinary Calculi in Transplanted Kidneys

Introduction and Objective: The purpose of this paper is to assess the safety and efficacy of endourological procedures for treatment of urololithiasis in transplanted kidney.
Materials and Methods: Patient characteristic, predisposing factors, clinical presentation, endourological procedures, complications, stone-free rate and graft and patient survival were analyzed.
Results: Between Jan 1989 and Sep 2011 we followed our total number of 1800 renal transplantation and found 21 cases of urolithiasis in them. Twenty-one patients (average 22 years old, 7 women and 14 men) with urolithiasis in transplanted renal units were treated. Predisposing factors included hyperparathyroidism (n=6). Hyperuricemia (n=5) ureteral stricture or obstruction (n=2), recurrent UTI (n =4) and unknown factors (n= 4). Clinical presentation consisted of hematuria (n=6) creatinine raise (n=5) UTI (n=4), anuria (n=3), and hydrophrosis (n=3). Localization of stones were in pelvis (n=8), calyces (n=3), and ureter (n=10). Size of stones were between 12-22 mm in kidneys and 6-10 mm in ureters. According to the size and location of stones we used different treatments. ESWL (n=9), TULP (n=10), PCNL (n=6) and combination therapy (n=4). Stone-free status was achieved in 6 of 9 in ESWL group (75%), in 7 of 10 in TULP group (70%), in 6 of 6 in PCNL group (100%). In patients who were not stone-free we used combination therapy and at last all of our patients were stone-free (100%). No intraoperative complications occurred, including major bleeding. Mean initial and post operative creatinine levels were (3 and 1.5) mg/100.
Conclusions: Endourological procedures for urolithiasis in transplanted kidneys are safe and effective methods with a high overall stone-free rate and should be considered in experienced hands and centers.