

Villa Tiberia Experience in the Treatment of Renal Stones with Retrograde Intrarenal Surgery (RIRS)

Introduction and Objective: The aim of this study is to show the results of our series of Retrograde Intrarenal Surgery (RIRS) carried out with flexible URS for kidney stones in an experienced centre.

Materials and Methods: A database was created and 108 patients were treated between January 2008 and October 2011. Variables and data analyzed included case load number, preoperative and postoperative imaging, stone burned, anesthesia (general or spinal), access location and size, ureteral access sheath device, operation time, stone-free rate, JJ stenting or not, complication rate, the percentage of endoscopic "second look" and hospital stay.

Results: Preoperatively, in 91 pts (84,25%) diagnosis was made with CT KUB scan, whereas in the follow-up only 70 (64,7%) used CT KUB scan, while 30 pts (27,9%) live kidney ultrasonography; X-ray and ultrasound only 8 pts (7,35%). Mean stone burned was $2,05 \pm 0,56$ cm². General anesthesia was induced in all pts. In 52 pts (48,2%) the stones was in the lower pole, in 37 pts (34,2%) in the medium and in 19 pts (17,6%) in the higher pole kidney. Only in 8 patients (7,4%) we had to perform a ureteral ostium dilation, thus in all patients we used ureteral access sheath. Operative time was 52 ± 37 minutes. In 68 pts (62,8%) a single procedure resulted effective, thus 38,3% of patients were treated with RIRS plus ESWL (20,5% one ESWL, 17,6% multiple ESWL). In all RIRS we used the Holmium laser. In 58 pts (92,0%) we placed a JJ stent. No blood transfusion but haematuria in 8 pts (7,35%), pain in 3 pts (2,77%) and urosepsis in 1 patient (0,92%). Mean hospital stay was $2,8 \pm 1,9$ days.

Conclusions: The high success rates, relatively low morbidity, short operative time and short hospital stay confirmed, in our experience, that RIRS with flexible ureteroscope is a good choice of treatment for patients affected by intrarenal stones .