

**P043** Extraperitoneal laparoscopic radical prostatectomy in renal transplant recipients. Is it an effective technique?

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Minguez Ojeda C., Garcia Barreras S., Hevia Palacios V., Tagalos Muñoz A., Dominguez Gutierrez A., Lopez Plaza J.A., Fernandez Conejo G., Sanz Mayayo E., Fraile Poblador A., Rodriguez Patrón R., Burgos Revilla F.J.

H. Ramón y Cajal, Dept. of Urology, Madrid, Spain

**Introduction & Objectives:** Prostate cancer (PC) is the most frequent genitourinary neoplasm affecting renal transplant patients with an incidence of around 3.5%. For organ-confined prostate cancer, laparoscopic radical prostatectomy (LRP) is an accepted minimally invasive treatment for a middle-aged man. The aim of the study is to report our experience with extraperitoneal LRP for the treatment of localised prostate carcinoma in kidney transplant recipients at our institution and to evaluate the efficacy and effectiveness of this technique.

**Materials & Methods:** Retrospective study including patients with previous renal transplantation diagnosed with prostate cancer between 2000 and 2021 (n=24). Of these patients, 9 underwent radical prostatectomy, 5 of them by extraperitoneal laparoscopic approach and 4 by open radical prostatectomy (OPR). We reviewed our clinicopathological data of these patients, including baseline, tumour and surgical features as well as postoperative follow-up. A comparative analysis was performed between both groups of operated patients.

**Results:** Of the 24 patients included, 9 received radiotherapy, 5 received hormone therapy, 1 started active surveillance and 9 underwent surgery. There was no significant difference in the risk of biochemical recurrence ( $p=0,37$ ) according to the treatment received (radiotherapy vs surgery). Regarding patients who underwent surgery. 5 underwent successful LRP by extraperitoneal approach, 3 of them had an early postoperative complication; One cases of ureteral reimplantation (Clavien-Dindo 3b) due to ureteral injury during surgery. Two cases of urinary sepsis (Clavien-Dindo 2) managed with intravenous antibiotic therapy.

Table 1 compares the results of patients who underwent open radical prostatectomy vs extraperitoneal laparoscopic approach without statistically significant differences

Variables (percentage/ IQR)	LRP (n=5)	OPR (n=4)	P
Age (years)	62.6 (53-73)	63.2 (56-70)	0.42
Preoperative PSA (ng/ml)	10.28 (4.47-26)	8.5 (5.5-10.5)	0.14
Surgery time (min)	222 (180-300)	210 (190-230)	0.64
ISUP surgical piece	ISUP 1: 2 (40%) ISUP 2: 1 (20%) ISUP 3: 0 ISUP 4: 2 (40%)	ISUP 1: 1 (25%) ISUP 2: 1 (25%) ISUP 3: 1 (25%) ISUP 4: 1 (25%)	0.65
Surgical margins	Negative: 3 (60%) Positive: 2 (40%)	Negative: 2 (50%) Positive: 2 (50%)	0.76
Unilateral lymphadenectomy	No: 3 (60%) Yes: 2 (40%)	No: 3 (75%) Yes: 1 (25%)	0.4
Hospital stay (days)	6,2 (3-15)	5 (4-6)	0,65
Early postoperative complications	No: 2 (40%) Yes: 3 (60%) à CD II/IIIB	No: 3 (75%) Yes: 1 (25%) à CD II	0.29
Biochemical recurrence	No: 5 (100%) Yes: 0	No: 3 (75%) Yes: 1 (25%) à At 2 years	0.18

**Conclusions:** Our data suggest that extraperitoneal laparoscopic radical prostatectomy, could be an effective and safe technique for a middle-aged man with organ-confined prostate cancer, but it is not free of complications.