



Robot Assisted Radical Prostatectomy in Solid Organ Transplantation:

Surgical Technique, Complications, and Oncologic Outcomes

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Introduction and Methods

- Over 36,000 solid organ transplants performed in U.S. in 2018
 - Life expectancy of patients >50 years of age receiving kidney transplants is approaching 20 years
 - In-situ transplanted organs may present surgical and perioperative challenges in robot assisted radical prostatectomies (RARP)
- Methods
 - Single-institution, retrospective review 2003-2019 of RARP
 - Analyzed patient demographics, perioperative and oncologic outcomes

Results and Conclusions

- Results
 - 20 patients with organ transplants
 - Median follow up 55 months
 - Complications:
 - Four within 30 days
 - Two Liver transplant patients: perirectal hematoma and thromboembolic event
 - All patients had undetectable PSA postoperatively
 - One patient with biochemical recurrence
- Conclusion:
 - RARP is technically feasible in solid organ transplant patients with organ-confined prostate cancer
 - Immunosuppression can be safely continued perioperatively

	Kidney N=10	Liver N=7	Heart N=3
Age (years)	65 (63-69)	54 (50-64)	64 (64-68)
ASA Score	3 (3-3)	3 (2.5-3)	3 (3-3)
Time from transplant to RARP (months)	50 (33-125)	50 (16-65)	72 (62-81)
Preoperative PSA (ng/dL)	5.1 (4.6-8.6)	6.7 (5.3-8.2)	5.1 (4.8-5.3)
Duration of procedure (minutes)	241 (180-248)	255 (217-286)	235 (223-247)
EBL (mL)	100 (88-100)	163 (113-194)	113 (94-131)
Prostate Mass (grams)	36 (34-42)	38 (30-46)	32 (30.5-33.5)
No. Gleason score on final pathology			
3 + 3	4	1	1
3 + 4	4	3	1
4+3	1	3	0
4 + 4	1	0	0
Complications			
<30 days	2	1	0
>30 days	0	1	0