Robot Assisted Radical Prostatectomy in Solid Organ Transplantation:

Surgical Technique, Complications, and Oncologic Outcomes

Kyle M. Rose, MD MS, Karan K. Arora MD, Kassem S. Faraj MD, Derek Scott BS, Erik P. Castle MD FACS, Paul E. Andrews MD, Robert G. Ferrigni MD

Mayo Clinic, Phoenix, AZ
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