

# PE11 Robot-assisted radical prostatectomy in patients with previous HoLEP: Preliminary results from a single institution study

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**Introduction & Objectives:** Holmium Laser Enucleation of the Prostate (HoLEP) is frequently used as treatment option for benign prostatic hyperplasia (BPH). However, it is not uncommon for men to develop prostate cancer (PCa) after transurethral surgery for BPH. To date, few studies investigated the feasibility and safety of robot-assisted radical prostatectomy (RARP) after HoLEP. We aimed at assessing and comparing short- and long-term outcomes of patients undergoing RARP with vs. without previous history of HoLEP.

**Materials & Methods:** We relied on a single institutional database including patients treated with RARP for clinically localized PCa between 2016 and 2018. Perioperative, functional and oncological outcomes of 7 patients who underwent RARP after HoLEP (Group 1) were compared to those of 19 patients with no history of previous transurethral surgery (Group 2), after 1:3 propensity-score matching for age at RARP, preoperative prostate-specific antigen (PSA) and Gleason Score at biopsy.

**Results:** Overall, 7 patients were treated with RARP after HoLEP from 2016 to 2018. Median age at HoLEP was 65 years [Interquartile range (IQR): 60-66]. Median preoperative PSA and prostate volume were 5.8 ng/mL (IQR: 4.4-7.9) and 80 gr (59-122), respectively. Two (28.6%) out of seven patients had incidental PCa. Median time from HoLEP to RARP was 41 months (IQR: 38-52). After matching, no residual differences remained between the two groups (all  $p > 0.05$ ). Median operative time (210 vs. 180 mins;  $p = 0.2$ ) and blood loss (300 vs. 300 mL;  $p = 0.2$ ) did not differ between Group 1 vs. Group 2. Two (28.6%) patients in Group 1 vs. three (15.8%) patients in Group 2 experienced post-operative complications. However, no Clavien-Dindo  $\geq 3$  complications were recorded in both groups. Only one (5.3%) patient in Group 2 had positive surgical margins ( $p = 0.9$ ) at pathological specimen examination. 1- and 3- month continence rate were 14.2 vs. 15.8% and 71.4 vs. 57.9% in Group 1 vs. Group 2, respectively (all  $p > 0.05$ ). After a median follow-up of 25 months (IQR: 18-36), one (14.3%) patient in Group 1 vs. five (26.3%) patients in Group 2 experienced biochemical recurrence (BCR).

**Conclusions:** The current data suggest feasibility and safety of RARP for treatment of PCa in patients with previous history of HoLEP. Operative time and blood loss were similar between the two groups. Moreover, no major complications were recorded, regardless of previous transurethral surgery. Finally, functional and oncologic outcomes were also comparable. However, further randomized, controlled studies including a larger cohort of patients are needed to confirm our preliminary results.