

**PP40**

**MINIMALLY INVASIVE SALVAGE PROSTATECTOMY AFTER PRIMARY RADIATION OR ABLATION TREATMENT: COMPLICATIONS, FUNCTIONAL AND LONG-TERM ONCOLOGICAL OUTCOMES**

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**Introduction:** We aimed to analyze the oncologic, functional and morbidity outcomes of minimally invasive salvage prostatectomy (MISP) after primary radiation or ablation treatment for prostate cancer at a tertiary referral institution.

**Material & Methods:** Between 2001 and 2015, 5841 patients underwent radical prostatectomy (RP) at our institution, out of which 25 were MISP. Indications for MISP were PSA nadir + 2ng/dl in radio-recurrent patients and biopsy-proven significant PCa in other ablative treatments. We analyzed primary treatment characteristics, surgical data, oncologic and functional outcomes, and compared results between MISP after primary whole-gland (WT) and focal (FT) treatments. Perioperative complications were reported using Clavien classification. Functional outcomes were analyzed with questionnaires and oncological outcomes using biochemical recurrence (BCR) (PSA >0.20ng/dl).

**Results:** Median age at salvage treatment was 65 years (51-73). The primary treatment and the recurrence data are shown in table 1. Compared to WT, MISP after FT had significantly lower operative time (136 vs. 176 min, p=0,004), less hospital stay (4,4 vs. 5,8 days, p=0,04) and fewer upstaging ( $\geq$ pT3a) (27,3% vs. 78,6%, p=0.01) at final pathology. Overall, PSM were noted in 4 patients (16%). Perioperative complications were observed in 8 patients with no difference between groups. High-grade complications (Clavien  $\geq$ 3) were observed in 2 patients. At 12-months follow-up, 57% were continent and 33% had moderate to severe urinary leak. Potency was preserved in 6 out of 9 pre-operatively potent patients.

Over a median follow-up of 62 months (IQR 43-110), 11 patients relapsed with a median time to BCR of 16 months (IQR 7-25). Recurrences were managed with salvage radiotherapy in 6 patients, 4 with hormone therapy and 1 CRPC. Three patients were lost to follow-up and 1 patient died of PCa. Overall, 21 patients are alive at last follow-up and 15 (68%) remain disease free.

**Conclusions:** MISP after primary radiation / ablation for PCa is feasible, safe with acceptable oncological outcomes. Compared to FT, MISP after WT appears to have longer operative time and hospital stay with more frequent upstaging.

Table 1. Primary and recurrence disease characteristics

PSA at primary treatment, ng/dl	7,78 $\pm$ 3,13
Primary treatment - Energy, n (%)	
Radiotherapy	7 (28)
Cryotherapy	11 (44)
Brachytherapy	1 (4)
HIFU	5 (20)
Laser	1 (4)
Primary treatment - Type, n (%)	
Whole gland	14 (56)
Focal	11 (44)
PSA at recurrence, ng/dl	7,83 $\pm$ 5,10
Time to recurrence, months (IQR)	26 (16-47)
Biopsy characteristics of recurrent Pca (n=23)	
3+3	11 (48)
3+4	8 (35)
4+3	4 (17)
Type of MISP, n (%)	
Laparoscopic	12 (48)
Robotic	13 (52)