

PALLIATIVE HOLMIUM LASER ENUCLEATION OF THE PROSTATE FOR SEVERE BLADDER OUTLET OBSTRUCTION IN PATIENTS WITH ADVANCED PROSTATE CANCER

Hypothesis / aims of study

To evaluate safety and postoperative outcomes of patients with advanced prostate cancer undergoing palliative HoLEP

Study design, materials and methods

A prospective data of 28 patients with advanced prostate cancer (at least more than cT3) undergoing palliative HoLEP between October 2012 and May 2014 was collected. The database was assessed including complications, functional outcomes, and quality of life (QoL) preoperatively and at 3 and 12 months postoperatively.

Results

Median age and follow-up (FU) of the entire study cohort was 69.5 years (58-84) and 17.5 months (5-28) (Table 1). 92.9% (26/28) of patients were undergoing androgen deprivation therapy at the time of palliative surgery. Any patient didn't receive radiation therapy for prostate cancer before and after the surgery. Preoperatively, 75% of patients (21/28) have experienced acute urinary retention (AUR) and the urethral catheter was installed in 46.4% of the patients (13/28) due to frank urinary retention at HoLEP. Collapse of surgical plane within the prostate and bladder invasion was founded in 42.9% (12/28) and 64.3 % (18/28) of patients, respectively. Medians of functional parameters improved significantly in all patients postoperatively (Table 2). Complications were low and no patient received blood transfusion postoperatively (Table 1). Catheter and pad free rate was 100% (24/24) and 87.5% (21/24) at last FU, respectively.

Table 1. Demographic and operative results for patients undergoing palliative HoLEP

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| | |
|----------------------------------|---------------|
| Number of patients | 28 |
| ECOG* Performance status | |
| 0, 1 | 21 |
| 2 | 7 |
| PSA (ng/mL) | 20.7 |
| Prostate volume (g) | 61.6 |
| Clinical stage (No.) | |
| T3 | 16 |
| T4 | 12 |
| N1 | 18 |
| M1 | 12 |
| Median Enucleation weight (g) | 18 (9-45) |
| Median Enucleation speed (g/min) | 0.5 (0.2-1.1) |
| Complication | |
| Grade I (urinary obstruction) | 3 |
| Grade III (Urethral stricture) | 2 |

* ECOG: Eastern Cooperative Oncology Group

Table 2. Postoperative characteristics after palliative HoLEP

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| | Preoperative results | Postoperative results | |
|---------------------------------|----------------------|-----------------------|------------------|
| | | 3 mos (N=28) | 12 mos (N=26) |
| Median IPSS** (range) | 32 (28-35) | 14.5* (7-27) | 16* (8-29) |
| Median QoL (range) | 6 (5-6) | 2 *(1-5) | 2* (1-5) |
| Median Qmax# (m/s) (range) | 6.4 (1.2-11.4) | 12.8* (6.2-17.3) | 11.7* (6.9-16) |
| Median PVR## (mL) (range) | 315 (60-1200) | 47.5* (0-180) | 62* (0-196) |
| Number of pads/day | | | |
| 0 | 26 | 25 | 23 |
| 1 | 0 | 3 | 3 |
| ≥2 | 2 | 0 | 0 |
| Gleason score (No.) | N=28 | N=28 | |
| 6 | 2 | 2 | |
| No cancer cells within specimen | 0 | 4 | |

*p<0.001 compared to preoperative results, ** International Prostate Symptom Score,

Maximum Urine Flow rate, ## Post-voided residual urine

Interpretation of results

Significant improvement was noted in Qmax, PVR, IPSS, and QoL at postoperative follow-up compared with baseline.

Concluding message

Palliative HoLEP represented a safe and effective surgical treatment in patients with advanced prostate cancer despite the surgical plane within the prostate was destroyed.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** PNUH-IRB Helsinki: Yes **Informed Consent:** Yes