

## P042 Location-based oncological outcomes of sentinel node dissection during radical prostatectomy: Are all sentinel nodes equal?

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**Introduction & Objectives:** Pelvic lymph node dissection (PLND) represents a crucial tool in the management of patients with intermediate-high risk prostate cancer. PLND template was progressively modified from limited to extended (ePLND). Alternative prostate lymphatic drainage outside the extended template has been reported in up to 30% of patients. Sentinel node dissection (SND) has been proposed as an ancillary procedure to ePLND and may provide tailored dissection by detection of uncommon lymphatic pathways. While data regarding overall outcomes of SND-plus-ePLND are available, the impact of SN location compared to ePLND template is unknown. We aimed to analyze the oncological outcomes of SND according to their location in comparison to ePLND template during prostatectomy.

**Materials & Methods:** We retrospectively analyzed data of cN0 patients that underwent RARP and ePLND with or without SN from 2013 to January 2022. Kaplan-Meier curves were used to depict biochemical (BCR-FS) and clinical recurrence (CR-FS) free survival according to SN location and nodal status. Multivariable Cox regression models assessed the impact of SN procedure on oncological outcomes according to SN location on SPECT and nodal status. Adjustment for casemix included: pathological T stage, ISUP grade group, initial PSA, nodal involvement burden, age at surgery and surgical margin status.

**Results:** 1267 patients were included. Median age at surgery was 67 years. Overall, 74.9% of patients had clinically organ-confined disease, with no difference between the two groups ( $p=0.4$ ). No difference emerged for ISUP grade group at final pathology ( $p=0.9$ ) and surgical margin status (32.6% vs 35%;  $p=0.5$ ). Patients in the SN group had a median higher lymph node yield at surgery (19 vs 15;  $p=0.001$ ), with more patients being found with pathological nodal involvement (30.5% vs 19.8%;  $p=0.002$ ). 55.8% of patients had at least one sentinel node outside of the ePLND template at SPECT/CT. The most frequent location for extra-ePLND SN were the presacral nodes (27.5%). The nodal locations with the highest SN positive ratio were the external iliac (22.9%), obturator (16.7%) and pararectal (16.3%). Overall 60-months BCR-FS in ePLND group was 69.4% for pN0 patients and 13.5% in pN1, similar with pN0 SND group (77%;  $p=0.06$ ), while pN1 SND patients had better BCR-FS (25.5%,  $p=0.01$ ). 55.8% patients had at least one sentinel node outside ePLND template. 60-months CR-FS in ePLND was 82.7% and 31.6% for pN0 and pN1 respectively, with better CR-FS in pN1 SND patients (47.5% vs 31.6%;  $p=0.02$ ). SN location outside ePLND template was an independent predictor for reduced risk of CR in pN1 patients (HR 0.54;  $p=0.04$ ). No differences were noted for CR-FS in the SND group according to SN location in or out ePLND template ( $p=0.3$ ).

**Conclusions:** SN outside the ePLND template are frequent. SN location outside ePLND template predicted better CR-FS in pN1 patients.