# PE36 The benefits and harms of (super) extended pelvic lymph node dissection during robot assisted radical prostatectomy

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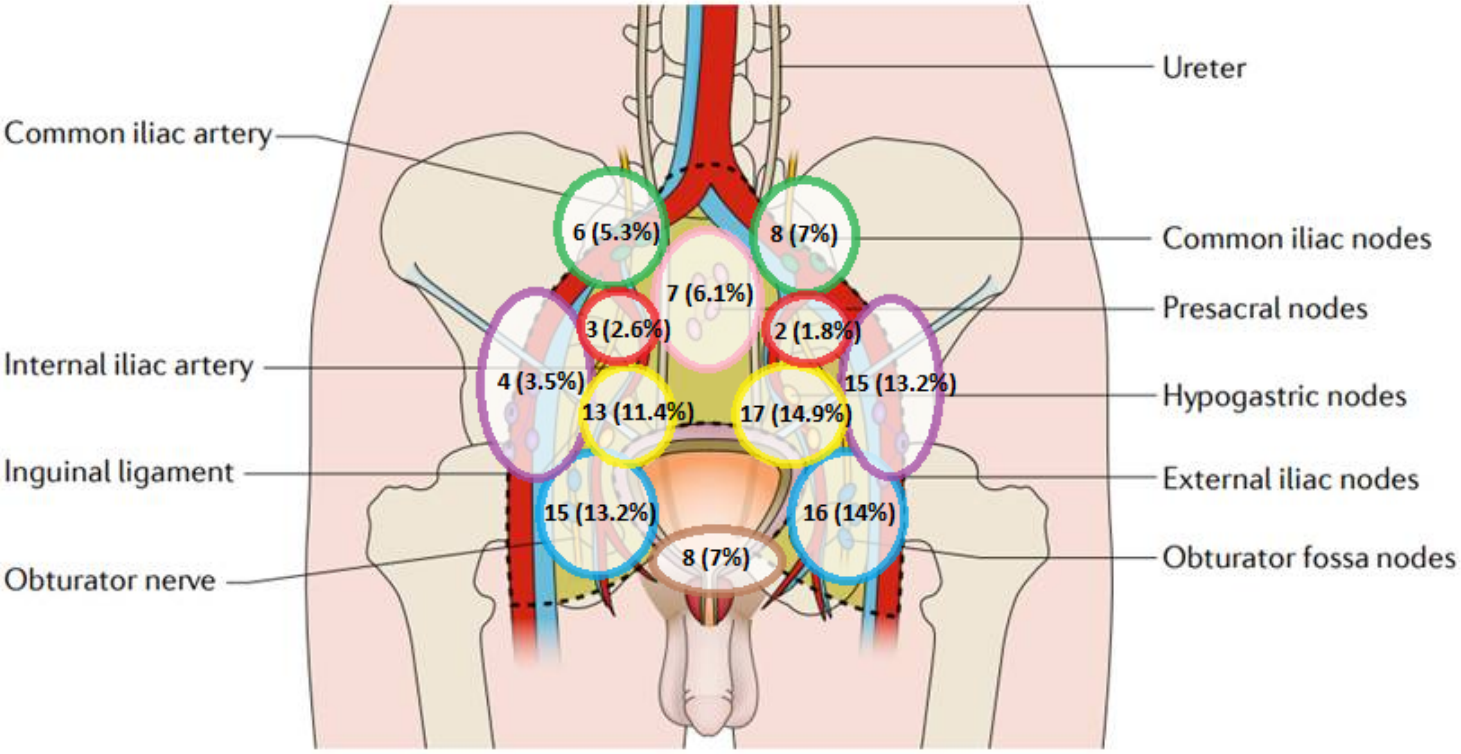
**Introduction & Objectives:** The present study evaluates the benefits and harms of (super) extended pelvic lymph node dissection ((s)ePLND) during robot assisted radical prostatectomy (RARP) in relation to its extent and morbidity. We investigated the lymph node invasion (LNI) risk related to the dissection template and anatomical regions of metastasis.

**Materials & Methods:** A retrospective cohort study evaluated 221 men who underwent a (s)ePLND in combination with RARP between Sept. 2016- Nov. 2018. ePLND (dissection of the lymph nodes (LN) within the obturator fossa and the external and internal iliac vessels) was performed in case of LNI risk ≥5% according to the Memorial Sloan Kettering Cancer Center nomogram. A sePLND (additional removal of pre-sacral and/or common iliac nodes) was performed in selected cases at surgeons' discretion. Patient characteristics included age, PSA level, biopsy results and tumor stage. Metastatic LN were related to their anatomical regions. Operative time, blood loss were registered and postoperative complications related to (s)ePLND were recorded according to the Clavien-Dindo (CD) classification.

**Results:** The median number of dissected LN per patient was 20 (IQR 15-27). 70 men (46%) underwent sePLND, the median number of LN dissected in sePLND was 26 (IQR 20-32), compared to 17 for ePLND (IQR 13-24; $p<0.001$). In 40 men (18%) LNI was identified with a total of 114 metastatic LN. 21 (18%) metastatic LN were detected with the additional resection of sePLND regions. Fig. 1 shows the anatomical distribution of LN metastasis. Of the 69 men (31%) who had 5-10% risk for LNI, 4 men (5.8%) had LNI whereas in this group 5 men (7.2%) had complications CD grade ≥2, most frequently symptomatic lymfoceles (n=3). Of those 152 men (69%) who had LNI risk of ≥10%, 36 (24%) had indeed LNI. Mean operative time was 175 min for ePLND and 213 min for sePLND ($p<0.001$), mean blood loss was 230 mL versus 252 mL, respectively. Complications CD grade ≥2 occurred in 3 men undergoing ePLND, for sePLND this occurred in 1 case.

**Figure 1:** Lymph node metastases per anatomical region




**Conclusions:** Our study shows that for LNI risk <10% the yield of LN metastasis does not outweigh the complications when performing ePLND during RARP. This would save 31% of ePLND in our cohort with the associated decrease in costs and morbidity. A sePLND in case of LNI risk ≥10% resulted in a significantly higher yield of LN and detection of LN metastasis without extra risk of complications.