PE33  Diagnostic accuracy of 68Ga-PSMA PET/CT in primary lymph node staging
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Introduction & Objectives: There is still an unmet need for the validation of Prostate-specific membrane antigen positron emission tomography-computed tomography (PSMA PET/CT) at primary staging of prostate cancer (PCa). Consequently we aim to determine preoperative diagnostic accuracy of 68Ga-PSMA PET/CT in detection of lymph node metastases in men with PCa treated Robot Assisted Laparoscopic Radical Prostatectomy (RALRP) and the extended pelvic lymph node dissection (e-PLND).

Materials & Methods: The study included 51 ≥ intermediate-risk PCa patients treated with RALRP and e-PLND. All patients were administered to 68Ga-PSMA PET/CT prior to surgery. 68Ga-PSMA PET/CT data were retrospectively evaluated and consequently compared to histological results from RALRP. Sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) for the detection of lymph node metastases were analyzed.

Results: The median age of the patients at the time of RALP was 63 years (50-75 years). Median lymph node yield was 18 (range 10-41). 12 metastases were found in 9 cases (17.6%). Preoperative 68Ga-PSMA PET/CT was issued ‘positive’ in 11 men and in 5 of them (45.4%) this was histopathological confirmed resulting in a PPV of 45.4%. On the contrary, PET was issued ‘negative’ in 40 cases but in 4 of them (10%) metastases were detected in the e-PLND specimen, resulting in a NPV of 90%. Sensitivity and specificity; 44.4 and 85.7% respectively.

Conclusions: Negative 68Ga-PSMA PET/CT results were highly reliable in our study. However, positive 68Ga-PSMA PET/CT results revealed less reliable results. Larger prospective trials are needed to clarify the potential role of PSMA PET/CT for primary staging.