RESULTS: 19 out of 20 specimens showed uptake of the ICG-pHLIP construct. Cancerous lesions in the bladder were targeted with a sensitivity and specificity of 86.2% and 94.7%, respectively. Ratio values allowed us to distinguish between high grade invasive (R = 3.15 +/- 0.57) and high grade non-invasive (R = 1.90 +/- 0.341) carcinomas (p < 0.0005), as well as between high grade non-invasive carcinoma and CIS combined with dysplasia (R = 1.340 +/- 0.45) (p < 0.05). Normal bladder mucosa showed no uptake of the ICG-pHLIP construct.

CONCLUSIONS: The ICG-pHLIP construct targets the acidic microenvironment of human urothelial carcinoma. Ratio values demonstrated preferential uptake in high grade cancers but also demonstrated uptake in dysplastic tissue. Normal bladder tissue was spared. Our findings open the opportunity to develop novel approaches for diagnosis and treatment of bladder cancers.

MP50-02
DOES THE NUMBER OF LYMPH NODES SAMPLED DURING RADICAL PROSTATECTOMY IMPACT RISK OF BIOCHEMICAL RECURRENT IN PATIENTS WITH SEMINAL VESICLE INVASION?

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INTRODUCTION AND OBJECTIVES: Seminal vesicle invasion (SVI) is a poor prognostic indicator associated with an increased risk of biochemical recurrence (BCR) and prostate cancer-specific mortality. Since patients with this pathologic finding are closely followed and often offered adjuvant therapy, any modification in surgical technique that may reduce the risk of BCR in patients with SVI would be of great importance. An extended pelvic lymph node dissection during radical prostatectomy (RP) when indicated is a surgical technique that facilitates accurate identification of nodal metastases and furthermore may confer a survival benefit. While supported in international guidelines, there is limited data on the oncologic benefit of increasing lymph node yield (LNY). The present study therefore sought to determine if greater LNY during RP is associated with a lower risk of BCR for men with pT3b prostate cancer.

METHODS: The present retrospective cohort study identified 265 patients from two medical centers who underwent RP from 1990-2015 and had prostate cancer with SVI (i.e. pT3bN0-1Mx). BCR was defined as two postoperative PSA values >0.2 ng/mL. A multivariable Cox proportional hazards model was used to determine if greater LNY during RP is associated with a lower risk of BCR for men with pT3b prostate cancer.

RESULTS: Median age, PSA and Gleason score were 63.6, 9.8 and 7.0 respectively. Median follow-up was 46.6 months. The estimated 5-year freedom from BCR rate was 42.2%. Median number of LNs sampled was 8 (IQR: 4-13). Results from a multivariable Cox proportional Hazards model demonstrated that LNY was not significantly associated with risk of BCR (p=0.261), while PSA (HR=1.01, p=0.001), pathologic Gleason score (HR=1.29, p=0.12) and year of surgery (HR=1.05, p=0.003) were significantly associated with an increased risk of BCR (Table 1).

CONCLUSIONS: Seminal vesicle invasion after RP is associated with a high risk of BCR. While greater lymph node yields facilitate increased accuracy in pathologic staging, our study demonstrates that when controlling for SVI, pathologic Gleason score is the primary driver of BCR.