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Session: Poster Session: Prostate Cancer - Localized Disease

[< Previous Presentation](#) [Next Presentation >](#)

Risk of urinary morbidity associated with photoselective vaporization of the prostate (PVP) in prostate cancer patients undergoing a combined radiotherapy regimen consisting of dynamic adaptive radiotherapy (DART) and brachytherapy boost.

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Abstract Disclosures

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None.

Background:

Recent studies have shown PVPs to be associated with diminished perioperative and postoperative complications compared to transurethral resection of the prostate (TURP) for benign prostatic hyperplasia (BPH). This is the first study to evaluate the timing of PVP intervention and post-treatment morbidity related to a combined regimen of DART and Pd-103 brachytherapy for treatment of prostate cancer.

Methods:

Between 12/05 and 04/20, 51 consecutive patients underwent Greenlight Laser (GLL) or Olympus Plasma Button (OPB) PVP after DART (median dose: 45 Gy) and before Pd-103 brachytherapy (median dose: 90 Gy). 27 patients received GLL PVP and 24 patients received OPB PVP. Peripheral seed loading designs were utilized to achieve optimal urethral sparing. The time from DART to PVP ranged from 1 to 81 days (median: 18 days). For 12 patients, the interval between DART and PVP was ≤ 7 days. The time from PVP to seed implant ranged from 0 to 55 days (median: 18 days). For 13 patients, the interval between PVP and implant was ≤ 7 days. American Urological Association (AUA) symptom scores were compiled prior to PVP and on the

last post-brachytherapy follow-up. Post-implant follow-up ranged from 6 months to 15 years (median: 6.4 years).

Results:

No patient experienced post-implant urinary retention or incontinence. Morbidity was limited to RTOG grade 1-2 symptoms, with the exception of one patient who experienced protracted dysuria, which was identified to be secondary to a pre-existing prostate anomaly (steep urethral curvature). Only that patient required dilation for urethral stricture. AUA scores improved or remained the same in 43 of 51 patients. Only 1 patient of the remaining 8 experienced an increase in AUA > 8 points.

Conclusions:

In our experience, there have been remarkably few adverse urinary sequelae following Pd-103 implantation in patients with prior PVP and DART. In contrast to TURPs, PVPs are safe even with short intervals between DART and brachytherapy. Based upon these results, pre-implant PVP is preferred, rather than PVPs or TURPs in the post-implant setting.

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