Editorial

Partial prostatectomy: technically feasible, but patient selection is paramount

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The goal of treating localized prostate cancer is to eradicate clinically significant cancers while maximizing preservation of urinary and sexual function. Many types of ablative therapy have emerged over the past several years, with the hope of minimizing morbidity, but with variable oncologic outcomes (1). As a consequence, new therapies are continually being evaluated. Villers and colleagues recently reported on a case series of patients with low- and intermediate-risk prostate cancer than underwent anterior partial prostatectomy (APP) (2). With a median follow-up of 30 months, the authors demonstrated excellent function outcomes with 100% continence and 83% potency rates. Surgical innovation should never be disparaged, especially when performed rigorously and on protocol, and the authors should be commended for identifying a need for a focal therapy option for anterior tumors, devising a novel technique to treat it, and studying the outcomes of their therapy. On the other hand, even in the experimental setting, appropriate patient selection is critical to ensure that neither undertreatment nor overtreatment occur.

Patient section is perhaps the most critical portion of a focal therapy study. Focal therapy for low-risk patients is likely overtreatment. Tosoian and colleagues recently demonstrated 99.9% cancer-specific survival and 99.4% metastasis-free survival of men with low- or very-low risk prostate cancer treated with active surveillance with curative intent (3). Conversely, men with high-risk (4) and very-high risk (5) prostate cancer are often undertreated with radical prostatectomy, and are not candidates for focal therapy. Effectively limiting patient selection to intermediate-risk disease is not without limitations, as intermediate-risk patients are a heterogeneous group with variable oncologic outcomes (6). For instance, this group has variable risk of lymph node metastasis (7) and non-organ confined disease (8,9), risking leaving cancer behind when focal therapy is employed.

In this series, comprehensive pre-operative work up was performed, with multi-parametric MRI, targeted biopsies and systematic biopsies to identify patients with predominantly anterior tumors, low- or intermediate-risk without evidence of extra-prostatic extension. Overall, 17 patients underwent APP. Of these 5 were low-risk on pre-operative assessment, two were intermediate by PSA criteria alone (10), and the remaining 10 were intermediate-risk by Gleason score. Of the 12 intermediate-risk patients, only 3 underwent pelvic lymph node dissection. Nine patients had positive margins (53%), including 6 of 8 (75%) patients with pT3 disease. Four patients experienced biochemical recurrence and were managed with salvage radical prostatectomy. One patient (patient 10) had Gleason 4+3 disease pre-operatively and a positive margin after APP. It seems that this patient would be a prime candidate for completion radical prostatectomy or adjuvant radiation; however, this patient was followed for 2 years after which he had a PSA recurrence. Salvage prostatectomy was performed at that time, but the patient's PSA never became

undetectable.

As an initial study, the reported outcomes are on par with other focal therapy efforts, and the careful follow-up the authors performed both regards to cancer control and quality of life will undoubtedly lead to refinement in future iterations. Hopefully, this study and future studies will help define the population of patients that require more than active surveillance, but less than radical therapy. Longer-term results, particular with regard to cancer recurrence, are needed to assess the real utility of APP.

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Footnote

Conflicts of Interest: The author has no conflicts of interest to declare.

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