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Joon Yau Leong
Thomas Jefferson University

Paul Chung
Thomas Jefferson University

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Penile prosthesis implantation after radiation therapy for prostate cancer

Joon Yau Leong[^], Paul H. Chung

Department of Urology, Sidney Kimmel Medical College, Thomas Jefferson University, Philadelphia, PA, USA

Correspondence to: Paul H. Chung, MD. Department of Urology, Sidney Kimmel Medical College, Thomas Jefferson University, 1025 Walnut Street, College Building, Suite 1110, Philadelphia, PA 19107, USA. Email: paul.chung@jefferson.edu.

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Erectile dysfunction (ED) is a major but sometimes underreported complaint in prostate cancer (PCa) survivors (1,2). It leads to mental health disorders such as depression, lack of partner intimacy and can have significant impact on the quality of life of cancer patients. Both radical prostatectomy (RP) and radiation therapy (RT) are associated with distinct patterns and timelines of ED (3). Fortunately, there exists various therapies for the treatment of ED, one of which is the penile prosthesis (PP) implant. This procedure is one of the more definitive options and allows for high satisfaction rates in both patients and partners, subsequently improving overall quality of life postoperatively (4).

In this article, the authors performed a comparative analysis of PP satisfaction between patients who underwent RP *vs.* RT for PCa using standardized questionnaires (5). They concluded that patients undergoing RP had greater sexual satisfaction and device satisfaction when compared to patients undergoing RT treatment. Median age and mean Charlson Comorbidity Index was also higher for the RT group, which would intuitively explain the higher prevalence of ED and the associated findings in this cohort. Their findings bring forth several clinical implications.

Firstly, the authors compared sexual satisfaction after PP implants for treatment-induced ED after either RP or RT only, with or without androgen deprivation therapy

(ADT). The authors were careful to exclude any patients who underwent both treatment modalities so as to not introduce crossover confounders. Utilizing the Erectile Dysfunction Inventory of Treatment Satisfaction (EDITS) questionnaire, they found that patients following RP had a statistically higher mean score for 8 of the 11 EDITS responses, and in overall EDITS score when compared to patients undergoing RT. Three additional survey questions regarding satisfaction of penile length was also more favorable towards the RP cohort. In recent years, the treatment of PCa has grown more nuanced and is often being managed in a multidisciplinary setting. Investigations have proposed the benefits of a multimodal approach with RP, RT, ADT for treatment of non-metastatic disease (6). The authors correctly mentioned the importance of assessing the erectile function of an additional population who undergo multimodal treatment for their PCa, as this scenario will be increasingly encountered in this modern era. The results from this study lays the foundation for future research to come.

Next, the authors also noted a longer median time interval between RT treatment and time to PP implantation when compared to the RP cohort (54.6 *vs.* 28.1 months, $P < 0.002$). They hypothesize that patients undergoing RT may opt for less invasive options for ED and the longer duration with limited success may increase their

[^] ORCID: 0000-0002-1698-8442.

dissatisfaction. We believe that one of the reasons for this discrepancy may be that radiation oncologist are more familiar with conservative management such as phosphodiesterase-5 inhibitors and less familiar with additional treatments for ED (7). As such, patients may not be aware of other options such as intracavernosal injections, vacuum erectile devices and PP implantations. This phenomenon may be more pronounced in non-tertiary care centers where high volume prosthetic urologists are not readily available. One of the ways to circumvent this is to ensure a multidisciplinary approach between radiation oncologists and urologists surrounding the treatment of PCa to ensure that post-treatment quality of life is restored as early as possible. Providers should be cognizant of these underreported concerns, well-versed in counseling patients regarding all the available treatment options, and prompt to refer patients to urologists that may be able to offer PP implantations as definitive treatment for their ED so that all treatment options are available to the patient.

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appropriately investigated and resolved.

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References

1. Adam M, Tennstedt P, Lanwehr D, et al. Functional Outcomes and Quality of Life After Radical Prostatectomy Only Versus a Combination of Prostatectomy with Radiation and Hormonal Therapy. *Eur Urol* 2017;71:330-6.
2. Chen RC, Basak R, Meyer AM, et al. Association Between Choice of Radical Prostatectomy, External Beam Radiotherapy, Brachytherapy, or Active Surveillance and Patient-Reported Quality of Life Among Men With Localized Prostate Cancer. *JAMA* 2017;317:1141-50.
3. Barocas DA, Alvarez J, Resnick MJ, et al. Association Between Radiation Therapy, Surgery, or Observation for Localized Prostate Cancer and Patient-Reported Outcomes After 3 Years. *JAMA* 2017;317:1126-40.
4. Levine LA, Becher EF, Bella AJ, et al. Penile Prosthesis Surgery: Current Recommendations From the International Consultation on Sexual Medicine. *J Sex Med* 2016;13:489-518.
5. Mehr JP, Blum KA, Green T, et al. Comparison of satisfaction with penile prosthesis implantation in patients with prostate cancer radiation therapy versus radical prostatectomy. *Transl Androl Urol* 2023;12:690-9.
6. Muise A, Pan MM, Rose B, et al. Functional outcomes after prostate cancer treatment: A comparison between single and multiple modalities. *Urol Oncol* 2023;41:104.e1-9.
7. Madan R, Dracham CB, Khosla D, et al. Erectile dysfunction and cancer: current perspective. *Radiat Oncol J* 2020;38:217-25.

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