

## Letter to the Editor

# Letter to the editor in response to Hopper et al, “Salvage image guided radiation therapy to the prostate after cryotherapy failure”

Adam Holtzman MD, Bradford S. Hoppe MD, MPH \*

Department of Radiation Oncology, University of Florida College of Medicine, Gainesville and Jacksonville, Florida

Received 31 January 2018; received in revised form 2 February 2018; accepted 3 February 2018

We read with great interest the article by Hopper et al on salvage image guided radiation therapy after failure of cryotherapy among 8 patients with prostate cancer with no acute grade 2 toxicities.<sup>1</sup>

As the authors note, radiation therapy for salvage of a local recurrence after cryotherapy yields acceptable disease control rates and relatively low toxicity or additional morbidity. However, even though salvage radiation therapy may provide minimal increased toxicity, cryotherapy followed by radiation therapy can result in more toxicity and worse disease control than upfront curative-intent radiation therapy.

In our experience, patients who received upfront cryotherapy suffered higher rates of grade 3 toxicities that were directly attributable to the cryosurgical procedure and lower rates of biochemical control compared with patients who received upfront radiation therapy.<sup>2</sup> Among >1000 men with prostate cancer who were treated with upfront radiation therapy at our institution, the cumulative incidence for all grade 3 toxicities was 5%, compared with a toxicity rate approaching 17% in patients who had received either cryosurgery or high-intensity focal ultrasound before image guided radiation therapy.<sup>3,4</sup>

Rather than debate or focus on the role of advancing technology, we should consider the toxicities that result from

cryotherapy in addition to those after radiation therapy. Although salvage radiation therapy provides acceptable biochemical control rates and minimal additional toxicity, it is important to remember that primary radiation therapy provides excellent oncologic control without the morbidity associated with cryotherapy.<sup>5</sup>

## References

1. Hopper AB, Sandhu APS, Parsons JK, Rose B, Einck JP. Salvage image guided radiation therapy to the prostate after cryotherapy failure. *Adv Radiat Oncol*. 2018;3:52-56.
2. Holtzman AL, Hoppe BS, Letter HP, et al. Proton therapy as salvage treatment for local relapse of prostate cancer following cryosurgery or high-intensity focused ultrasound. *Int J Radiat Oncol Biol Phys*. 2016;95:465-471.
3. Bryant C, Smith TL, Henderson RH, et al. Five-year biochemical results, toxicity, and patient-reported quality of life after delivery of dose-escalated image guided proton therapy for prostate cancer. *Int J Radiat Oncol Biol Phys*. 2016;95:422-434.
4. Colaco RJ, Hoppe BS, Flampouri S, et al. Rectal toxicity after proton therapy for prostate cancer: an analysis of outcomes of prospective studies conducted at the university of Florida Proton Therapy Institute. *Int J Radiat Oncol Biol Phys*. 2015;91:172-181.
5. Mendenhall NP, Li Z, Hoppe BS, et al. Early outcomes from three prospective trials of image-guided proton therapy for prostate cancer. *Int J Radiat Oncol Biol Phys*. 2012;82:213-221.

Sources of support: None.

Conflicts of interest: The authors have no conflicts of interest to disclose.

\* Corresponding author. University of Florida Health Proton Therapy Institute, 2015 North Jefferson St., Jacksonville, FL 32206.

E-mail address: [bhoppe@floridaproton.org](mailto:bhoppe@floridaproton.org) (B.S. Hoppe).

<https://doi.org/10.1016/j.adro.2018.02.002>

2452-1094/© 2018 The Author(s). Published by Elsevier Inc. on behalf of the American Society for Radiation Oncology. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).