

# Everything old is new again

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I recently performed two suprapubic prostatectomies in patients with huge prostates and multiple, large bladder stones and must admit, enjoyed this bit of surgery. Over the years, I have avoided open surgery and sweated through stone-filled bladders and gargantuan prostates to avoid a small midline incision. The procedure had virtually disappeared from my practice with the introduction of 5-alpha reductase inhibitors and effective lasers.

Gonadotropin-releasing hormone (GNRH) agents have also become a mainstay in the treatment of prostate cancer patients. There are at least five basically equivalent GNRH agonists and one antagonist, all with the sole purpose of reducing our patients' serum T levels to surgically castrate ranges. They all do a reasonable job and I'll not review the data that demonstrate incomplete suppression in a small number of patients, the frequency of micro surges of T levels in certain patients, and the need for frequent T measurements to ensure consistent castrate levels.

However, I was recently reminded of the role of bilateral orchidectomy in this patient population after reviewing an editorial by Dr. Al Morales, a prominent, now retired Canadian academic.<sup>1</sup> Written in 2012, he suggests that surgical castration still had a role in the treatment of metastatic prostate cancer and wondered what had led to its abandonment. There is little published data that suggest medical castration produces superior outcomes when compared to surgical castration. The primary reason for the adoption of medical castration was the avoidance of surgery and the negative effects of an empty scrotum.

When orchidectomy was introduced in 1975, the life expectancy of the metastatic prostate cancer patient was considerably shorter than it is now. Medical castration rapidly replaced orchidectomy, as it gave us flexibility when considering androgen deprivation therapy (ADT) for our patients. Indications expanded and now, 50% of GNRH agents prescribed in Canada are for locally advanced disease with treatment failure post-radical prostatectomy or external beam radiation therapy (EBRT). Dr. Klotz's review of intermittent therapy in a recent issue of *CUAJ* nicely outlines the role of GNRH agents in Canadian practice.<sup>2</sup> Canadian urologists have led the world in the adoption of intermittent therapy.

If we compare the total costs of medical vs. surgical castration, surgery wins by a landslide. The average time on ADT, even for those men with significant metastatic disease, is increasing thanks to second-line abiraterone acetate (AA) and chemotherapy. With the migration of second-line antiandrogens to the castrate-sensitive patient and the additional number of new androgen receptor agents, our metastatic prostate cancer patients are living longer — much longer. The cost of treatment in this population has skyrocketed as well.

There is a primary role for medical castration in the intermittent androgen blockage population that Dr. Klotz describes: patients that require adjuvant ADT during and after EBRT or young men who may struggle with the idea of orchidectomy. As a community urologist who worked when bilateral orchidectomy was the standard of care, I believe we should reconsider surgical castration for certain populations. The newer agents developed have increased the life expectancy of our patients but also significantly increased the cost of care. Isn't it time to consider some cost-saving measures? Certainly, most of us would agree that the castration-resistant prostate cancer patient would be best served by orchidectomy.

So why haven't we migrated back to surgical castration? One reason is the role that pharmaceutical companies who manufacture GNRH play in our community. They provide home injection programs, assist with family and patient aid, and support educational meetings at a national and local level — all important components of improved patient outcomes. However, our role as urologists is to provide the best care while still considering the cost-effectiveness of our decisions.

I believe if we told our prostate cancer patients it would save the system \$6000 a year in drug costs and \$500 a year in bloodwork, many would be happy to donate their testes to the cause. Furthermore, as Dr. Morales wrote in 2012, after a few years of ADT most scrotums look and feel empty due to the testicular atrophy that follows GNRH therapy.

Let's start the discussion. It's just a small midline incision.

## References

1. Morales A. Guest editorial: Bilateral orchidectomy should not be considered an obsolete alternative for metastatic cancer of the prostate. *Can J Urol* 2012;1:6414-6.
2. Klotz L. The history of intermittent androgen deprivation therapy: A Canadian story. *Can Urol Assoc J* 2020;14:159-62. <https://doi.org/10.5489/cuaj.6601>

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