

AdVance slings in radiated patients – should we implant?

Chad R. Pusateri, DO, Jack M. Zuckerman, MD

Department of Urology, Naval Medical Center San Diego, San Diego, California, USA

Referring to the article published on pp. 8998-9002 in this issue

PUSATERI CR, ZUCKERMAN JM. AdVance slings in radiated patients – should we implant? *Can J Urol* 2017;24(5):9003.

The prevalence of urinary incontinence is two to five-fold greater among prostate cancer survivors and this burden of urinary problems is growing as they are living longer.¹ Since its introduction in 2007, the AdVance sling (Boston Scientific, Marlborough, MA, USA) has been a safe and effective treatment option for men with mild to moderate stress urinary incontinence. Anatomically, the sling effectively lengthens and repositions the membranous urethra² to a pre-prostatectomy configuration. Pelvic radiation can hinder urethral mobility and compliance making adequate urethral compression difficult.³

In this issue of *The Canadian Journal of Urology*, the authors review their 10 year experience⁴ with the AdVance sling in patients with post prostatectomy incontinence. They compare subjective and objective outcomes of sling placement in men with and without history of adjuvant radiation. In their retrospective cohort, they assessed short and long term satisfaction of 36 patients using EPIC questionnaires, PPD use, and the patient's willingness to recommend an AdVance sling to a friend. Fourteen patients had history of radiation and 22 were radiation-naïve of which 16 were available for long term follow up. Radiated patients experienced short term improvement in overall EPIC scores of 15.4, PPD improvement of 1.1, and satisfaction of 64% compared to the non-radiated group with EPIC improvement of 30.5 ($p < 0.05$), PPD of 2.3 ($p < 0.001$), and satisfaction of 35% ($p < 0.05$). While not statistically significant, long term improvement in PPD use decreased to 0.8 and satisfaction declined to 33% in

six radiated patients at a mean of 61.5 months follow up. Non-radiated patients maintained similar levels of continence and satisfaction with 10 patients reporting PPD improvement of 1.55 and 80% satisfaction. They conclude that while radiated patients may initially experience success after AdVance sling placement, there is decreased efficacy and patient satisfaction with long term follow up.

The results of the current study mirror previously reported AdVance sling outcomes in radiated patients. We have found in our experience and analysis of outcomes that radiated patients with low volume leakage actually do reasonably well with the AdVance sling. It is the radiated patients with high volume leakage that do dismally.^{5,6} Similarly, we have noted the efficacy of the AdVance sling diminishes at long term follow up in irradiated patients. Adequate counselling is the most important factor when tailoring patient expectations. □

References

1. Kopp RP, Marshall LM, Wang PY et al. The burden of urinary incontinence and urinary bother among elderly prostate cancer survivors. *Eur Urol* 2013;64(4):672-679.
2. Rehder P, Berger T, Kiss G, Madersbacher H, Gozzi C. AdVance™ male sling: anatomic evidence of retrourethral position after tensioning without direct urethral compression. *J Urol* 2008;179(4 Suppl):570-571.
3. Comiter CV, Dobberfuhr AD. The artificial urinary sphincter and male sling for postprostatectomy incontinence: Which patient should get which procedure? *Investig Clin Urol* 2016;57(1):3-13.
4. Wright HC, McGeagh K, Richter LA et al. Transobturator sling for post-prostatectomy incontinence: radiation's effect on efficacy/satisfaction. *Can J Urol* 2017;24(5):8998-9002.
5. Zuckerman JM, Tisdale B, McCammon K. AdVance male sling in irradiated patients with stress urinary incontinence. *Can J Urol* 2011;18(6):6013-6017.
6. Zuckerman JM, Edwards B, Henderson K, Beydoun HA, McCammon KA. Extended outcomes in the treatment of male stress urinary incontinence with a transobturator sling. *Urology* 2014;83(4):939-945.

Address correspondence to Dr. Jack M. Zuckerman, Department of Urology, Naval Medical Center San Diego, 34800 Bob Wilson Drive, Suite 403, San Diego, CA 92134