

Does the Prostatic Urethral Lift Change the BPH Treatment Paradigm?

The 3 year results of the prostatic urethral L.I.F.T study are as encouraging as they are confusing.¹ This trial was one of the defining studies for the prostatic urethral lift device and has continued beyond 3 months as a carefully documented cohort.² On one hand the cumulative retreatment rate was satisfactory for the minimally invasive nature of the treatment at 10.7% per-protocol, suggesting indirectly at least that most patients in the short term are satisfied with their treatment choice. The ejaculatory function also improved at each time point as did the bother associated with ejaculatory problems which is somewhat difficult to explain and understand. On the other, an attempt at creating a treatment algorithm to aid implantation revealed that neither the number nor the density of implants, the prostate volume or the prostate length predicted treatment response or symptom relief! The flow rate at 3 years was only a modest 53% (3.5 mL/s) improvement over baseline and the IPSS improved 41% over the same time period. The flow rate improvement in the control arm would have been interesting to have data on as a comparison. Clearly the simple premise that these implants merely retract the obstructing lateral lobes and dis-obstruct the bladder outlet does not account for all of these observations. The foreign body itself may exert some influence. The European BPH6 trial has in fact defined a new metric which may help us understand and compare new therapies of this sort.³

Typically the life expectancy of new minimally invasive techniques for BPH is determined primarily by a combination of corporate factors, reimbursement, clinical efficacy, ease-of-use and cost-effectiveness - once in clinical use. Probably the most important initially is the first of these as the development phase for these devices is both lengthy and expensive, investment capital is a finite resource. Many good ideas do not 'get past first base' because of poorly conceived and executed early game plans. The UroLift system and the company which developed it (Neotract Inc., Pleasanton, CA USA) appear to have successfully negotiated these early hurdles including satisfying appropriate regulatory authorities regarding safety and now are moving into the uncertain territory which is 'clinical use'. The battle for urologists 'hearts and minds' is a complicated and rather cluttered one in the BPH space and we shall see how this device fares over the next few years.

Patients on the other hand may have a different set of values particularly if they are sexually active. The paradigm in the past for managing these men, with the various successors to TURP, has been centred around maximal tissue removal, patient safety and the lowest possible retreatment rates.⁴ Increasingly issues such as retrograde ejaculation have become important and 'acceptable' durability for these treatments has yet to be defined. The 10.7% who required further treatment in the L.I.F.T. study at 3 years might well be happy to accept this trade-off given the improved sexual and ejaculatory function. Ejaculatory function is increasingly being understood⁵ and technical modifications to techniques such as HoLEP are starting to appear.⁶ Whether the urethral lift device will survive in the long term or not is unclear but as a treatment it has certainly made us all re-evaluate what is actually important to patients and as such has made an important contribution.

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1. Roehrborn CG, Rukstalis DB, Barkin J et al. Three year results of the prostatic urethral L.I.F.T. study. *Can J Urol* 2015;22(3):7772-7782.
2. Roehrborn CG, Gange SN, Shore ND et al. The prostatic urethral lift for the treatment of lower urinary tract symptoms associated with prostate enlargement due to benign prostatic hyperplasia: the L.I.F.T. Study. *J Urol* 2013;190(6):2161-2167.
3. Sonksen J, Barber NJ, Speakman MJ et al. Prospective, randomized, multinational study of prostatic urethral lift versus transurethral resection of the prostate: 12-month results from the BPH6 study. *Eur Urol* 2015 April 30. Epub ahead of print.
4. Gilling PJ, Wilson LC, King CJ, Westenberg AM, Frampton CM, Fraundorfer MR. Long-term results of a randomized trial comparing holmium laser enucleation of the prostate and transurethral resection of the prostate: results at 7 years. *BJU Int* 2012;109(3):408-411.
5. Sturch P, Woo HH, McNicholas T, Muir G. Ejaculatory dysfunction after treatment for lower urinary tract symptoms: retrograde ejaculation or retrograde thinking? *BJU Int* 2015;115(2):186-187.
6. Kim M, Song SH, Ku JH, Kim HJ, Paick JS. Pilot study of the clinical efficacy of ejaculatory hood sparing technique for ejaculation preservation in holmium laser enucleation of the prostate. *Int J Impot Res* 2015;27(1):20-24.