

BPH

Making a splash against LUTS

New data from a single-arm phase II trial support the safety and effectiveness of minimally invasive, image-guided waterjet tissue ablation (aquablation) for the treatment of lower urinary tract symptoms (LUTS) caused by BPH.

Transurethral resection of the prostate (TURP) is the standard surgical treatment for men with LUTS owing to benign prostatic obstruction but can cause complications, including incontinence, urinary retention and erectile dysfunction. Minimally invasive procedures, which also include laser and thermal ablation, aim to minimize the adverse effects of TURP while providing similar effectiveness in relieving symptoms.

Following a feasibility study in 15 men, the new study of aquablation expanded the patient cohort to 21 men (mean patient age 70 years) who underwent treatment in three

centres in Australia or New Zealand.

At baseline, mean prostate volume was 57 ml, mean International Prostate Symptom Score (IPSS) was 22.8 and mean Q_{\max} was 8.7 ml/s.

The procedure was technically successful in all patients and no related serious adverse events occurred.

The total mean procedure time was 45 minutes, of which 5 minutes were ablation time and 7.5 minutes cautery time. At 1 day after treatment, urinary catheters could be removed in all except one patient and all except two patients could leave the hospital. Within 30 days of the procedure, six patients had a grade 1 or grade 2 adverse event (eight events in total).

After a 1-year follow-up period, mean IPSS had improved by 16.2 points, the quality of life component of the IPSS had improved by 3.3 points and Q_{\max} had improved by 9.7 ml/s (all $P < 0.01$). Prostate

volume, measured by transrectal ultrasonography in 16 men, was decreased by a mean of 18 ml at 6 months after aquablation.

“We had the opportunity to trial this device several years ago and have been increasingly happy with its newer generations,” remarks Peter Gilling, first author of the new study. “The most important aspect of this technology is the ability to standardize therapy with a conformal approach. It might be the prostatectomy of the future.” A prospective, multicentre, randomized trial termed WATER that compares aquablation of the prostate with TURP for the treatment of LUTS is currently underway. Following treatment, safety and effectiveness outcomes will be measured at 3 months and 6 months, respectively, with a long-term follow-up period of 3 years.

Clemens Thoma

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ORIGINAL ARTICLE Gilling, P. et al.

Aquablation of the prostate for symptomatic benign prostatic hyperplasia: one-year results. *J. Urol.* <http://dx.doi.org/10.1016/j.juro.2017.01.056> (2017)