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BPH

Feasibility of water ablation for removal of prostate tissue

A new study reports the feasibility of a novel minimally invasive water ablation therapy for the removal of prostatic tissue in men with lower urinary tract symptoms (LUTS) secondary to benign prostatic hyperplasia (BPH).

Transurethral resection of the prostate (TURP) is considered the treatment of choice for benign prostatic obstruction in prostates with a volume of between 30 ml and 80 ml. However, although TURP is associated with improvements in International Prostate Symptom Score (IPSS) and peak urinary flow rates, it is also associated with complications such as postoperative bleeding, incontinence, urinary retention, urethral strictures and erectile dysfunction.

GYRO PHOTOGRAPHY/amanaimagesRF/iStock/Thinkstock

Peter Gilling *et al.* investigated use of Aquablation® (Aquabeam, USA) —a minimally invasive water ablation therapy that combines image guidance and robotics for the targeted removal of prostatic tissue using a high-velocity saline stream—in men with LUTS secondary to BPH. The prospective study included 15 men (mean age 73 years) with a mean prostate size of 54 ml (range 27–85 ml) who were treated with Aquablation® under general anaesthesia. Patients were followed up at 1 month, 3 months and 6 months.

The mean duration of the procedure was 48 min. Treatment was technically successful in all patients. Catheters were removed from all but one patient on day 1, and most patients were discharged on the first postoperative day. Over the 30 days after the procedure, five patients required recatheterization and there were several incidences of dysuria, haematuria and pelvic pain, but no serious adverse events or incidences of incontinence, retrograde ejaculation or erectile dysfunction were reported.

Among the 14 patients for whom follow-up data were available, mean IPSS improved from 23.1 at baseline to 8.6 at 6 months; peak urinary flow rate also improved, from 8.6 ml/s at baseline to 18.6 ml/s at 6 months. Mean prostate size decreased by 31% compared with baseline.

The authors conclude: "these preliminary results ... demonstrate Aquablation of the prostate is technically feasible with a safety profile comparable to other BPH technologies."

Rebecca Kelsey

Original article Gilling, P. *et al.* Aquablation – image guided robotically-assisted waterjet ablation of the prostate: initial clinical experience. *BJU Int.* doi:10.1111/bju.13358