

BPH

Lasers equal TURP in head-to-head study

Short-term outcomes of the GOLIATH study have been published in *European Urology*, demonstrating that laser vaporization is noninferior to transurethral resection of the prostate (TURP) in terms of safety and efficacy. The investigators hope these findings will encourage clinicians to choose laser treatment over the longstanding surgical standard TURP, the safety of which has recently been questioned for men with large prostates.

Low-level evidence has been accumulating to suggest that laser treatment can achieve similar efficacy outcomes to TURP with a superior safety profile, but GOLIATH is the largest study to directly compare these procedures in men with lower urinary tract symptoms secondary to benign prostatic obstruction. 265 men from 29 centres in 11 European countries were randomized to undergo either 180-W GreenLight® (American Medical Systems, USA) laser therapy or TURP.

The study was powered to demonstrate the noninferiority of laser vaporization for three outcomes—International Prostate

Symptom Score (IPSS), maximum flow rate (Q_{\max}) and freedom from complications during the first 180 days after the procedure—all of which were similar between treatment arms at 6 months. Moreover, laser therapy was superior to TURP for a number of perioperative outcomes; vaporization was associated with shorter catheterization times, quicker return to stable health and shorter hospital stays than TURP.

An interesting ancillary issue associated with vaporization therapies is the missed opportunity to evaluate prostate specimens for prostate cancer. In this study, prostate tumours were detected in tissue resected from five patients in the TURP arm (3 + 3; $n = 4$), with one case of Gleason sum 7 (3 + 4). Given the similar baseline patient characteristics between groups, the authors are keen to emphasize that the risk of delayed prostate cancer diagnosis in patients who undergo laser vaporization is probably low. More studies are required to confirm this hypothesis.



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This publication is unlikely to be the last we hear from the GOLIATH study; the investigators intend to report longer term outcomes in the future, which they hope will confirm the durability of laser therapy. Data on erectile function outcomes at 12 months are also forthcoming.

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Original article Bachmann, A. *et al.* 180-W XPS GreenLight laser vaporisation versus transurethral resection of the prostate for the treatment of benign prostatic obstruction: 6-month safety and efficacy results of a European multi centre randomised trial—the GOLIATH study. *Eur. Urol.* doi:10.1016/j.eururo.2013.10.040