TITLE: GreenLight™ Laser Therapy for Benign Prostatic Hypertrophy: Clinical-Effectiveness

DATE: 14 May 2009

RESEARCH QUESTION:

What is the clinical-effectiveness of GreenLight™ laser therapy for the treatment of benign prostatic hypertrophy?

METHODS:

A limited literature search was conducted on key health technology assessment resources, including PubMed, the Cochrane Library (Issue 2, 2009), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI, EuroScan, international health technology agencies, and a focused Internet search. The search was limited to English language articles published between 2004 and May 2009. Filters were applied to limit the retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, controlled clinical trials, and observational studies. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

RESULTS:

HTIS reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, controlled clinical trials, and observational studies.

Two observational studies were identified regarding the clinical-effectiveness of GreenLight™ laser therapy for the treatment of benign prostatic hypertrophy (BPH). No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or...
controlled clinical trials were identified from the literature search results. Additional articles of interest may be found in the appendix.

OVERALL SUMMARY OF FINDINGS:

Two observational studies regarding the clinical-effectiveness of GreenLight™ laser therapy for the treatment of BPH were identified.¹,²

Ruszat et al.¹ observed 117 consecutive patients undergoing laser treatment for BPH. Sixty-two patients were treated with the 120 watt GreenLight™ high-performance laser system (HPS) and 55 were treated with a 980-nm high-intensity diode laser. Both systems were effective at tissue ablation. Higher rates of prostate capsule perforation and lower rates of bladder neck stricture, re-treatment, and stress urinary incontinence were observed in patients receiving HPS.

Tayib et al.² evaluated the HPS in 11 high-risk patients with symptomatic BPH undergoing prostatectomy. Complications were observed in one patient. All patients were able to void their bladders successfully after Foley catheter removal, one day after surgery. The authors concluded that the HPS was effective and safe for use in this high-risk group.

Overall, two observational studies with sample sizes of 117 patients and 11 patients were identified by our literature search. Observational studies do not control for potential bias. Both studies found the HPS to be effective for tissue ablation.¹,²
REFERENCES SUMMARIZED:

Health technology assessments
No literature identified

Systematic reviews and meta-analyses
No literature identified

Randomized controlled trials
No literature identified

Controlled clinical trials
No literature identified

Observational studies


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APPENDIX – FURTHER INFORMATION:

Review articles


Additional references