



Title	Photoselective Vaporization for Benign Prostatic Hyperplasia with KTP (Potassium-Titanyl-Phosphate) Laser or GreenLight
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Reference	Report no. CT 2007/04. www.sergas.es/MostrarContidos_N3_To2.aspx?IdPaxina=60058&uri=/Docs/Avalia-t/CT2007_04%20Laser%20Verde.pdf&hifr=900&seccion=0&seccion=0

Aim

To assess the efficacy, effectiveness, and safety of selective photovaporization using KTP or green laser in treating benign prostatic hyperplasia (BPH).

Conclusions and results

The bibliographic search retrieved 155 studies, of which 25 met the inclusion criteria. Most of the primary studies had a short follow-up time and corresponded to case series, except for one case-control study and a randomized controlled clinical trial (the latter study displayed low-quality methodological design and reported only preliminary results).

In the subjective (International Prostatic Symptom Score – IPSS- questionnaire and QoL) and objective (Qmax, VPR) parameters studied, the following improvements were observed when comparing preoperative and postoperative values: 49% to 88% in the IPSS; 86% to 93% in QoL; 150% to 246% in Qmax; and maximum values in VPR. As regards complications, the results of the respective studies showed low complication rates with the 80W green laser in both low- and high-surgical-risk patients (with oral anti-coagulants or large prostate volumes) thanks to its hemostatic properties and swift ablation of tissue with no increased risk of perioperative bleeding.

Evidence on the efficacy, effectiveness, and safety of treating BPH using 80W KTP or green laser is of low quality and based largely on uncontrolled clinical series and short follow-up times. Study results indicate that this technique is effective, leads to significant improvements in IPSS, Qmax, and VPR, requires a short hospital stay, and entails prompt withdrawal of the urethral catheter. Drawbacks include its unsuitability for taking histopathological specimens and the complexity involved in performing a total ablation of prostatic tissue.

It is a safe technique that has a low complication rate, requires no blood transfusion, and can be performed in the absence of postresection transurethral reabsorption syndrome. The most frequent complications are dysuria,

polakuria, retrograde ejaculation, urethral constriction, clot retention, and hematuria. The procedure can be performed with minimal risk of bleeding in patients having high surgical risk, oral anticoagulation therapy, or large glands. GreenLight laser has a short learning curve, but should nonetheless be performed by professionals with experience in the technique.

Further research/reviews required

Studies of good methodological quality are called for, as is a cost-effectiveness study to compare the results of this technique against those of transurethral resection of the prostate, the gold standard for treating BPH.