

GreenLight Laser Photoselective Vaporization of the Prostate (PVP): a single site experience and outcomes

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INTRODUCTION AND AIM

Photoselective Vaporisation of the Prostate (PVP) is an established alternative for Bladder Outlet Obstruction (BOO), particularly in elderly and higher bleeding risk patients.

In the present retrospective observational study we evaluated the success rate and functional outcomes of GreenLight Laser PVP with use of 180W XPS generator in patients treated for BOO in a single site, high volume BPH centre, in the UK.

METHODS AND MATERIAL

Retrospective data analysis was conducted on 46 patients. Data was collected from clinical health records and radiology images. All participants were investigated pre-operatively and were deemed low risk for prostate cancer, with the use of PSA and/or MRI of the prostate.

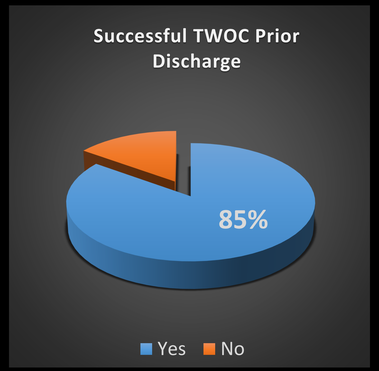
The pre and post-operative parameters were collected including the patient's age, prostate volume, medical management before surgery, previous high-pressure urinary retention and dependency on long-term catheter.

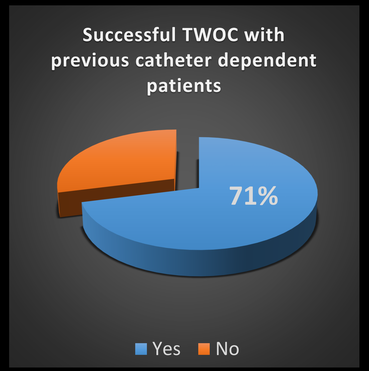
RESULTS

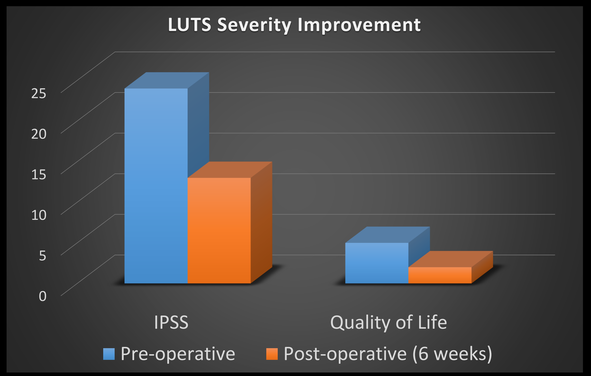
46 patients underwent GreenLight Laser PVP between May 2023 and May 2024 in a single site. The patients' mean age was 71.3 [IQR 64, 83] with a mean prostate volume of 62cc [IQR 42, 86]. 40 (95%) patients were on a-blocker and/or 5-alpha-reductase inhibitors and 14 (30%) were catheter dependent pre-operatively. The mean operative time was 38 minutes [IQR 24, 58]. No immediate complications were encountered, the transfusion rate was 0% and the mean hospital stay was 1.2 days.

39 (85%) patients were rendered catheter-free prior to discharge. In previously catheter-dependent or self-catheterising patients, 71% managed to have their catheter removed on the first attempt with a residual less than 200ml. The patient's symptoms improved significantly with a mean reduction in IPSS score of 11 points [IQR 3,19] and mean QoL of 3 [IQR, 2,4] 6 weeks postoperatively.

Patient's Characteristics	
Mean Age	71.3yo [IQR 64, 83]
Mean Prostate Volume	62cc [IQR 42, 86]
A-blocker / 5-Alpha-Reductase Inhibitors	40 (95%)
Mean Operative Time	38 minutes [IQR 24, 58]
Mean Hospital Stay	1.2 days
Mean Reduction in IPSS (6-weeks post-op)	11 [IQR 3,19]
Mean Reduction in QoL (6-weeks post-op)	3 [IQR 2,4]







CONCLUSIONS

Greenlight laser vaporisation is a safe, effective and cost-efficient treatment for BPH, particularly in comorbid patients that require minimisation of the operative time and have a higher risk of intraoperative bleeding.

REFERENCES

1. Misraï V, Rouprêt M, Guillotreau J, Bordier B, Bruyère F. Traitement de l'hyperplasie bénigne de prostate par photovaporisation au laser Greenlight(®) : analyse de la littérature [Greenlight(®) photoselective vaporisation for benign prostatic hyperplasia: a systematic review]. Prog Urol. 2013 Feb;23(2):77-87. French. doi: 10.1016/j.purol.2012.10.013. Epub 2012 Nov 26. PMID: 23352299.