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TWO YEARS REVIEW OF 120 PATIENTS TREATED FOR BPH USING THE REVOLIX 2 MICRON CONTINUOUS WAVE LASER

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INTRODUCTION & OBJECTIVES

To study the safety and efficacy of a thulium laser (thulium/2.013 nm) for transurethral vaporization of benign obstructive prostate tissue (BPH), since the Thulium wavelength vaporizes rather than coagulate tissue, the technique offers significant advantages over transurethral resection of prostate (TURP), Holmium procedure (HOLEP), KTP laser-photoselective vaporization of prostate (PVP). The RevoLix laser has been specifically designed to vaporize and incise soft vascular and non vascular tissue with good hemostasis and without damage to surrounding structures. The target chromophore is water, the same as for the Holmium laser, but it is a continuous wave laser, not a pulsed laser.

MATERIAL And METHODS

The Thulium laser (2.013 continuous wavelength) was used in conjunction with an frontal and lateral devices, engineered to precisely focus laser energy (70 w) in order to minimize the risk of incomplete ablation of the prostatic tissue. Vaporization of the prostate was performed on small to medium prostates (<35g), while VapoResection was found to be much faster on large prostates. VapoResection is a protocol whereby the laser is used to vaporize tissue and resect small pieces of prostate-similar to the TURP protocol. The size of the prostate ranged from 20 to 80 grams in the group. A Foley catheter is placed and removed 5 hours later. Patients are released catheter-free.

RESULTS

A group of 120 consecutive patients who have been treated for BPH using the RevoLix laser were reviewed. Patients ranged in age from 45 to 87, 10 patients presented urinary retention, 9 patients were on anticoagulant therapy. PSA t/f, transrectal ultrasound, biopsies if necessary, AUA-6 Symptom Score (AUA-SS), Q-max flow rate and post-void residual volume (PVR) was performed. Our final results with Thulium laser (mean AUA-SS from 21,9 to 1,9; mean Q-max from 0-7,6 to 21,9 ml/sec; PVR from 109,8 to 14,5 ml) are comparable to TURP and PVP-results. No patients required additional treatment such as bladder neck incisions, strictures etc., 3 patients required retreatment with this technique due to insufficient vaporization of prostatic tissue in the first treatment.

CONCLUSIONS

The Thulium laser appears to offer a safe, bloodless, easy, effective and more rapid outpatient surgical procedure. The Thulium laser provides immediate reduction of prostatic tissue and consistent TURP-like results. To date, the results have been extremely encouraging, with minimal postoperative discomfort and a low rate of complications. The Thulium laser treatment results in true disobstruction accompanied by immediate improvement in voiding symptomatology.