Laser Assisted Bipolar Transurethral Resection of Prostate with Oyster Procedure for Patients with Large Prostate

Introduction and Objective: Monopolar transurethral resection of the prostate (TURP) for the large prostate is not advocated due to the higher risk of operative morbidity. Bipolar and diode laser devices allow transurethral resection of prostate with saline irrigation, which decreases the risk of water toxicity. This study was conducted to survey the efficacy and safety of the diode laser assisted bipolar TURP with Oyster method for the treatment of patient with large prostate.
Materials and Methods: We evaluated 43 patients treated with laser assisted bipolar TURP with Oyster method for benign prostatic hyperplasia (BPH) at Changhua Christian Hospital. Forty-three patients with large prostate volume (>80 ml) and worsened lower urinary tract symptoms, were treated between April 2008 and April 2011 with the Oyster method. The preoperative management of the patient and anesthesia are similar to those for TURP. The prostate was enucleated from prostatic apex with bipolar equipment and the prostatic adenoma was separated from prostatic surgical capsule with resectoscope till the bladder neck. The bleeding points were coagulated with laser. Then the less blood supply prostatic adenoma was resected chip by chip with bipolar TURP.
Results: To date, 43 patients have been randomized. In general, the International Prostate Symptom Score, maximum flow rate and post-voiding residual urine improved significantly after operation. Less blood loss was noted by the postoperative hemoglobin evaluation. No patients required manual clot evacuation. No TUR syndrome was noted. Bladder neck contracture was noted in two patients in at least 1 year follow up.
Conclusions: The main advantage of the Oyster method is that it can remove the large prostate adenoma from the surgical capsule in a short time. This method can improve perioperative visibility and decrease perioperative and postoperative bleeding. Our preliminary results with diode laser assisted bipolar TURP with Oyster procedure suggest that it is a useful and safe endoscopic method for large prostate; however, long-term results (i.e., 5-year follow-up) should be evaluated.