Duration of vaporization may also influence depth of penetration. Thermal injury represents a gradual continuum of histologic changes. Our study shows the button vaporization electrode achieves a much lower peak voltages compared to monopolar systems (80–100 V vs. 500–800 V). The effects of bipolar electrosurgery may thus result in less thermal tissue injury by the bipolar vaporization electrode was 2.4mm. Histopathologic evaluation demonstrated thermal injury in all specimens, but no gross char was encountered.

CONCLUSIONS: Histopathologic changes after bipolar resection of the prostate: depth of penetration of bipolar thermal injury.

Simone Thavaseelan, Akanksha Mehta*, Gyan Pareek, George Halebian, Providence, RI

INTRODUCTION AND OBJECTIVES: Bipolar circuitry allows for transurethral resection (TURP) to be performed without the risk of dilutional hyponatremia and TUR syndrome. Standard monopolar resection has a reported penetration depth of 0.68mm. The power required to initiate bipolar vaporization is higher than conventional monopolar resection. However, after initiation of the plasma arc, the energy required to maintain bipolar vaporization is significantly lower than monopolar resection and may thus result in less thermal tissue injury. This may have implications for long-term tissue regrowth, scarring, and the associated recurrence of lower urinary tract symptoms. The objective of this study is to assess histopathologic changes, specifically the depth of thermal penetration, in prostate tissue after bipolar TURP.

METHODS: Inclusion criteria consisted of men >40 years old with a diagnosis of benign prostatic enlargement (BPE) or urinary retention, who elected to undergo bipolar transurethral vaporization of the prostate. Patients were excluded if they had a history of previous TURP or brachytherapy.

An Olympus button vaporization electrode was used to vaporize prostate tissue after which a loop electrode was used to obtain a deep resection specimen of the same tissue. The vaporized and loop resection surfaces were inked and then sent for pathologic analysis to evaluate from baseline to early follow-up will maintain improvement at later follow-up.

Source of Funding: none

2266

HOLMIUM LASER ENUCLEATION OF THE PROSTATE (HOLEP): LONG TERM DURABILITY OF CLINICAL OUTCOMES AND COMPLICATION RATES OVER 10 YEARS FOLLOW UP IN A LARGE PATIENT COHORT

Hazem Elmansy*, Ahmed Kotb, Mostafa Ehiilali, Montreal, Canada

INTRODUCTION AND OBJECTIVES: HoLEP has demonstrated good short- to midterm clinical improvement. However, long-term durability (>5 years) is still lacking. The aim of our study is to assess the long term durability of the subjective and objective outcomes and complication rates.

METHODS: A retrospective analysis of 952 patients treated with HoLEP between March 1998 and September 2010, in a single center. Study variables included measurement of maximum urinary flow rate (Qmax), post void residual urine (PVR), international prostate symptom score (IPSS) and quality of life (QoL). Follow-up evaluations were done for the patients during their visits over 10 years follow up postoperatively. Complications rates were also recorded.

RESULTS: The median age of the patients, pre and post operative PSA, prostate volume and operative time were 70 years, 4.3 ng/ml, 81 grams and 96 minutes respectively. The mean follow up period was 62 months. The mean IPSS and QoL were 310 ml, 7.9 ml/sec, 19 and 3.8 respectively. Postoperatively all the variables showed a significant improvement starting at first month of follow up, and kept significantly low over the whole duration of follow up.

At 1 month, 1 year and 10 years follow up, the mean PVR was 48, 31 and 28 c.c, mean Qmax was 22, 24 and 27, mean IPSS was 7, 4 and 3.6 and mean Qol was 1.5, 1 and 1 respectively. Patients with acute urinary retention represent 36% (343 patients) of our cohort. Postoperatively the mean PVR was 45, 25 and 52, mean Qmax was 21, 24 and 23, mean IPSS was 7.3, 4.4 and 3.8 and mean Qol was 1.6, 0.7 and 1.0 at 1 m, 1 y and 10 y respectively.

Transient urinary stress incontinence was found in 47 men (4.9%) in the first 3 months follow up visit with only 5 patients (0.5%) still have SUI up to the last follow up visit. Persistent urge incontinence was found in 1% of our cohort.

Bladder neck contracture and urethral stricture developed in 0.8% and 1.6% of patients, respectively. The reoperation rate as a result of recurrent obstruction because of residual adenoma was 0.7% of patients.

CONCLUSIONS: HoLEP represents an effective treatment modality for men with symptomatic benign prostatic hyperplasia, with very low rate of complications over a long duration of follow up. Patients who improve from baseline to early follow-up will maintain improvement at later follow-up.

Source of Funding: none

2267

PROSTATIC ARTERY EMBOLIZATION TO TREAT BENIGN PROSTATIC HYPERPLASIA - SHORT AND MEDIUM TERM OUTCOMES

Luís Campos Pinheiro*, Joao Pisco, Tiago Bilhim, Vitor Vaz Santos, Joao O’Neill, Lisbon, Portugal

INTRODUCTION AND OBJECTIVES: Evaluate the short and medium term results of prostatic artery embolization (PAE) in patients with symptomatic benign prostatic hyperplasia (BPH) with Polivinyl Alcohol (PVA) particles 100 µm or 200 µm.

METHODS: Prostatic artery embolization (PAE) was indicated in 57 patients with symptomatic BPH, after failure of medical treatment; age ranged between 60 and 82 years (mean 72.6 years). Twelve patients had urinary retention with bladder catheter.

Prostate volume, PSA, uroflowmetry, IPSS, IIEF were evaluated before PAE and 1, 3, 6 and every 6 months thereafter. The mean prostate volume before PAE was 94.6cc. The procedure was performed under local anaesthesia by a single femoral approach with a

| Source of Funding: none |