mean year of discontinuation of combination therapy was 2 years. Whereby, the most common reason for discontinuation of combination therapy was converting to single medication (19.8%). Age did not influence the adherence rate (p < 0.484), but the QoL-I was a predictor to adherence of combined therapy (p = 0.000).

**Conclusion**: The patient received combination therapy showed significant improvement in all the measured parameter. The most common factor of discontinuation of combination therapy was converting to single medication. QoL-I after treatment lead patient adheres to combination therapy.

#### NDP039.

# POSTOPERATIVE OUTCOMES AND SAFETY OF BIPOLAR TRANSURETHRAL ENUCLEATION AND RESECTION OF THE PROSTATE

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**Purpose:** Bipolar transurethral enucleation and resection of the prostate (TUERP) has been reported to be a method in the management of benign prostatic hyperplasia (BPH), especially for large prostate glands. Our objective was to report the early postoperative outcomes and safety of the bipolar TUERP technique.

**Materials and Methods:** A total of 30 consecutive patients had undergone bipolar TUERP by a single surgeon. All patients were evaluated preoperatively by physical examination, digital rectal examination, transrectal ultrasonography and blood tests, including haemoglobin, sodium level and prostate specific antigen measurement. Patients were assessed perioperatively and postoperatively at 1, 3, 6 and 12 months.

**Results:** The mean enucleated prostatic adenoma specimen weight was 52.6g. The mean enucleation, resection and operative time were 13.6, 47.7 and 91.5 minutes respectively. The mean decrease in serum PSA after bipolar TUERP was 87.8% (from 6.36 to 0.86 ng/mL). Prostate volume was decreased by 68.6% at 4 weeks postoperatively. The mean haemoglobin drop was 1.18 g/dL. The rate of transient urinary incontinence at 3 month was 3.6%. None of the patients required blood transfusion or developed clot retention. One patient required re-catheterization and successfully weaned off catheter 1 week later. Patients who underwent bipolar TUERP had short catheterization time and hospital stay comparable to TURP patients.

**Conclusion:** Bipolar TUERP is the safe and efficient endourological equivalent of open prostatectomy with fewer complications and shorter convalescence. The technique of bipolar TUERP has a satisfactory early functional outcomes and low morbidity.

### NDP040:

## PREDICTIVE FACTORS TO URETHRAL STRICTURE AFTER TRANSURETHRAL RESECTION OF PROSTATE

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**Purpose:** To evaluate the relationship between predictive factors and urethral stricture (US) after transurethral resection of prostate (TUR-P). **Materials and Methods:** We have retrospectively reviewed the data of 206 consecutive TUR-P cases by single experienced urologist. Eligible patients (n = 206) were grouped with respect to presence of US after TUR-P with cystoscopy confirmed 3 months after TURP; Group1: US positive (n = 29, 14.1%), and Group2: US negative (n = 177, 85.9%). Groups were compared with respect to descriptive data.

**Results:** Of 206 eligible patients, lower post-OP (maximal uroflow rate) UFRmax and lower pre-OP acute urine retention (AUR) were observed in US positive group (17.1  $\pm$  6.91 versus 11.37  $\pm$  6.50, p < 0.01; 13.8% versus 35.0%, p = 0.01, respectively). Other factors included age of the patient, operation time, catheter indwelling days and prostate specific antigen have no statistically significant relation to US after TUR-P.

**Conclusion:** Post-OP UFRmax and UFRmax deviation are predictors of post-OP urethral stricture. Pre-OP AUR is associated with post-OP urethral stricture. Our results should be supported by prospective studies including higher number of patients.

#### NDP041:

RETROSPECTIVE EVALUATION OF THE LEARNING CURVE OF THE THULIUM LASER ENUCLEATION OF THE PROSTATE: A SINGLE CENTER EXPERIENCE

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**Purpose**: The aim of this article is to describe the learning curve of ThuLEP (Thulium Laser Enucleation of Prostate) that permits a complete anatomical endoscopic enucleation of prostatic adenoma independently to prostate size.

**Materials and Methods**: 66 patients were enrolled between January 2013 and December 2014, and treated for BPH with ThuLEP. 24 patients were excluded due to malignancy, infection, bladder stone, blood clot tamponade and incomplete data. The following data of each patient was collected: prostate volume, International Prostate Symptoms Score (I-PSS), PSA value, total prostate volume, resected prostate weight, laser time. ThuLEP was performed by a single surgeon. The data was reviewed retrospectively.

**Results**: Mean age at surgery was 68.9+/-9.2 years. Mean preoperative size of prostate was 79.8+/-26.8 ml Mean IPSS was 22.1+/-4.3. Mean resected prostate weight was 28.2+/-17.2 gm. Mean operation time was 113.8+/-34.5 minutes. Mean length of hospital day was 4.5+/-0.8 days. In the study, enucleation efficiency including the ratio of prostate weight to laser time and the ratio of resected prostate weight to total prostate volume was gradually improved by practice. However, the P-value of the enucleation efficiency was not significant.

**Conclusion**: We shared our experience for the ThuLEP operation. ThuLEP has a steep learning curve. Based on the available data, the approach is safe and effective. Further, large-scale prospective studies are needed to prove long-term durability.

## Urolithiasis

### NDP042:

### THE SEASONAL METEOROLOGICAL VARIATION ON UROLITHIASIS

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**Purpose**: The incidence of urolithiasis increases in warm climate region as well as during summer months. The purpose of this study is to analysis the impact of climate factors on the prevalence of urolithiasis in our hospital. **Materials and Methods**: We retrospectively reviewed the records of extracorporeal shockwave lithotripsy (ESWL) performed in our hospital from January 2007 to December 2014. Total number of ESWL procedures was recorded monthly during this 8-year period. Repeated ESWL of same patient within one month was excluded and we only count as one ESWL in our study. Total out-patient numbers at our hospital were used as an estimation of population. Climate data of the corresponding months were collected from Central Weather Bureau. Available monthly meteorological data include highest, lowest and average temperature, average humidity, total rainfall, total rain days, total sun-shine hours, average atmospheric pressure and maximum 10-min wind speed.

**Results**: Monthly ESWL rate is positively associated with average temperature (B = 0.661, p < 0.001), rainfall (B = 0.294, p = 0.023), sun-shine hours (B = 0.471, p < 0.001) and wind-speed (B = 0.310, p = 0.016); while it is negatively related with humidity (B = -0.378, p = 0.003) and atmospheric pressure (B = -0.531, p < 0.001) in univariate linear regressions. When we examine these factors together in multivariate linear regression, only monthly average temperature and atmospheric pressure remain significant association to ESWL rate. Using Poisson regression model, we further validated that temperature (B = 0.051, 95%CI: 0.034-0.068, p < 0.001) and atmospheric pressure (B = 0.029, 95%CI: 0.015-0.044,

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