INTRODUCTION & OBJECTIVES: Transurethral Resection of the prostate (TURP) is still the gold standard for management of Benign Prostatic Obstruction (BPO). However, it is contraindicated in patients whom on concomitant anticoagulant therapy (ACT) or platelet aggregation inhibitors (PAIs). These medications should be discontinued at appropriate period before TURP. The objective of the present study is to assess feasibility, safety and efficacy of bipolar plasma kinetic energy for management of benign prostatic obstruction (BPO) in patients on concomitant ACT or PAIs.

MATERIAL & METHODS: After institutional review board approval, Transurethral Bipolar Plasma kinetic Enucleation of the Prostate was performed in patients presenting with BPO and on concomitant ACT or PAIs. Patient demographics and perioperative data were collected. Moreover, the type of ongoing ACT or PAIs was recorded. Patients’ baseline and follow-up data were compared in terms of the International Prostate Symptoms Score (IPSS), Quality of life score (QoL), peak flow rate (Qmax) and residual urine volume (PVR) at 1, 3, and 6 months.

RESULTS: Between December 2012 and February 2014, 30 patients underwent transurethral bipolar plasma kinetic enucleation of the prostate were included. Seven patients were on oral ACT (Warfarin) whereas 23 patients were on PAIs, including 18 on Acetyl Salicylic Acid (ASA) and 5 on Clopidogrel Bisulfate. Patients on Warfarin were shifted to low molecular weight heparin preoperatively; meanwhile Clopidogrel or ASA was continued perioperatively. The median age was 68.5 years (range: 60-80), with median prostate volume of 60cc (30-100), median PSA of 2.4 ng/ml (1-4). Five patients (16.7%) presented with preoperative indwelling urethral catheter secondary to refractory urinary retention. The mean preoperative IPSS, QoL, Qmax, and PVR were 25.4±0.6, 3.7±0.2, 6.4±0.3 ml/sec, and 56.1±3.0 ml, respectively. The mean Hemoglobin (HB) deficit was 0.8±0.9 gm/dL, with mean Hematocrit (HCT) deficit of 2.4±1.8 %. Only one patient (3.3%) had intraoperative bleeding necessitated blood transfusion. Two patients (6.7%) failed to void after catheter removal. No patients developed either thromboembolic complications or post transurethral resection (TUR) syndrome. Mean catheter time and hospital stay were 16±4.1 hours and 25.7±10.6 hours, respectively. IPSS, QoL, Qmax, and PVR significantly improved at all follow-up visits (all p-values <0.001) (Figure 1).

Figure 1: Follow-up data of the improvements in IPSS, QoL, Qmax (ml/S), and PVR (ml) from the baseline at 1, 3, and 6 months
CONCLUSIONS: Transurethral Bipolar Plasma kinetic Enucleation of the Prostate seems to be feasible, safe and effective in management of coagulopathic patients with Benign Prostatic Obstruction.