

## Day Surgery Bipolar Plasmakinetic Transurethral Resection of the Prostate (pk-TURP): A 5-Year Prospective Study

**Introduction and Objective:** Monopolar Transurethral resection of the prostate (m-TURP) is the gold standard for symptomatic treatment of BPH. Bipolar pk-TURP has similar efficacy and improved safety profile over m-TURP. However there is limited published data regarding the safety and clinical outcome of pk-TURP as a day-surgery (DS) procedure. Our objectives were to evaluate the safety and clinical outcome of DS pk-TURP over a 5-year period.

**Materials and Methods:** There were 126 patients with BOO who underwent day-surgery pk-TURP from 2005 to 2011. They were discharged on the same day after 4 hours of bladder saline irrigation and had trial without catheter (TWOC) 48 hours later in outpatient clinic. International Prostate Symptom Score (IPSS), Bothersome Score, maximum urinary flow rates (Qmax), postvoid residual urine (PVRU) and any surgical complications were assessed at 1, 6, 12 months.

**Results:** There were 124 out of 126 patients (98.4%), mean age 65 years, successfully discharged on the same day with no complications. There were 92.9% (n=116) patients who had successful TWOC in the clinic. The mean surgical resection time was 51 minutes\mean resected prostate weight was 19.1 grams and mean bladder washout duration was 6.6 hours. No patient required blood transfusion. One patient had secondary haemorrhage requiring hospitalization. The clinical outcomes were summarised in Table 1. The overall stricture rate was 15.9% (n=20): 19.2% (14 cases out of 73) up to 2007 and from 2008 onwards 11.5% (6 out of 53). One patient had urinary retention a year later.

Table 1: Clinical outcomes for pk-TURP

	Baseline	6 months	12 months
IPSS	18.4 ± 8.7	6.9 ± 5.4 (p=0.0057)	5.6 ± 5.8 (p=0.0048)
Qmax (ml/s)	7.3 ± 4.5	13.9 ± 7.2 (p<0.0001)	15.3 ± 6.1 (p<0.0001)
PVRU (ml)	139.8 ± 148.7	31.5 ± 49.0 (p<0.0001)	23.4 ± 35.6 (p<0.0001)

(Paired t-test comparing baseline and 6 and 12months)

**Conclusion:** DS pk-TURP is safe with few complications. Our initial stricture rate was high at 19.2% and following serial urethral dilatation, this decreased to 11.5%. Only 1 patient required hospitalization. The clinical outcome is similar to published literature on inpatient pk-TURP. Therefore, pk-TURP is suitable as a day-surgery procedure and can be cost-effective for both patient and healthcare institution. pk-TURP can be offered as an alternative standard treatment for symptomatic BPH.