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**Authors:** D. W. Park, H. S. Moon, I. K. Lee and Y. S. Park

**Institution:** Park Y. S. Urology Clinic  
The Severance Institute of Andrology

**Title:** THE EFFECT OF TRANSURETHRAL NEEDLE ABLATION IN BENIGN PROSTATIC HYPERPLASIA LARGER THAN 50GRAM OR WITH MEDIAN LOBE HYPERPLASIA

**Aims of Study:**

The effect of transurethral needle ablation (TUNA) to cause coagulation necrosis of the prostate in benign prostatic hyperplasia (BPH) is well known. However, there is little data about the effect of TUNA in BPH larger than 50g or with median lobe hyperplasia, because these were treated by transurethral resection of prostate. Thus, we evaluated the effect of TUNA in BPH larger than 50g or with median lobe hyperplasia.

**Methods:**

Subjects were 30 BPH patients whose maximal uroflow rate was less than 15ml/s, and the prostate was larger than 50g or with median lobe hyperplasia where the prostate height was more than 36mm. We measured the maximal uroflow rate and the prostate volume. The operation was done under caudal anesthesia with TUNA system. We reduced the needle length to 12mm before inserting needles into the median lobe. The patient was kept a urethral catheter for 1week. The maximal uroflow rate was measured at 1 and 4weeks, and the prostate volume was re-measured at 4weeks after the operation.

**Results:**

Preoperative, postoperative 1week and 4weeks maximal uroflow rate was 0 to 14ml/s (average = 7.1), 5 to 18ml/s (average = 11.9) and 9 to 24ml/s (average = 15.9) respectively. Preoperative and postoperative 4weeks prostate volume was 51.8 to 104.0g (average = 71.1) and 51.5 to 98.5g (average = 66.6). We found a significant statistical increase of maximal uroflow rate in 28 of 30 patients (93%) at 1week (the maximal uroflow rates of 10 patients were more than 15ml/s; paired t-test, P value = 0.00005) and among all patients by 4weeks after the operation (the maximal uroflow rates of 19 patients were more than 15ml/s; paired t-test, P value = 0.00005). And a significant statistical decrease of the prostate volume was found in all patients after the treatment (paired t-test; P value = 0.00005).

**Conclusions:**

We believe that TUNA is suitable under caudal anesthesia, eventhough in BPH patient who has the prostate larger than 50g or with median lobe hyperplasia. The patient can expect satisfactory result within 4week after the operation, once the prostate has begun to shrink.

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