

## REMODELING OF THE PROSTATE CAVITY ON 6 MONTHS FOLLOW UP AFTER PHOTOVAPORIZATION OF THE PROSTATE

### Hypothesis / aims of study

In contrast to TURP, the surgical outcome of laser prostate vaporization is difficult to quantitate. Previous studies have proposed that the follow up cavity appearing on prostate ultrasonography is an effective measurement of vaporized prostate volume. However, changes to the vaporized cavity and its clinical effects were not clearly identified. The present study proposes to correlate clinical outcome with follow up prostate and cavity volume, to identify the changes which vaporization eventually affects clinical improvement.

### Study design, materials and methods

Patients diagnosed with BPH were prospectively enrolled to receive laser vaporization of the prostate. Transrectal ultrasonography was performed before surgery and immediately after and on 6 months follow to measure prostate volume and vaporized volume. International Prostate symptom score (IPSS) and Uroflowmetry were also performed before surgery and on immediate, 3 months and 6 months follow up. Prostate volume at 6 months follow up was correlated with initial cavity volume, follow up cavity volume, IPSS, maximum voided volume.

### Results

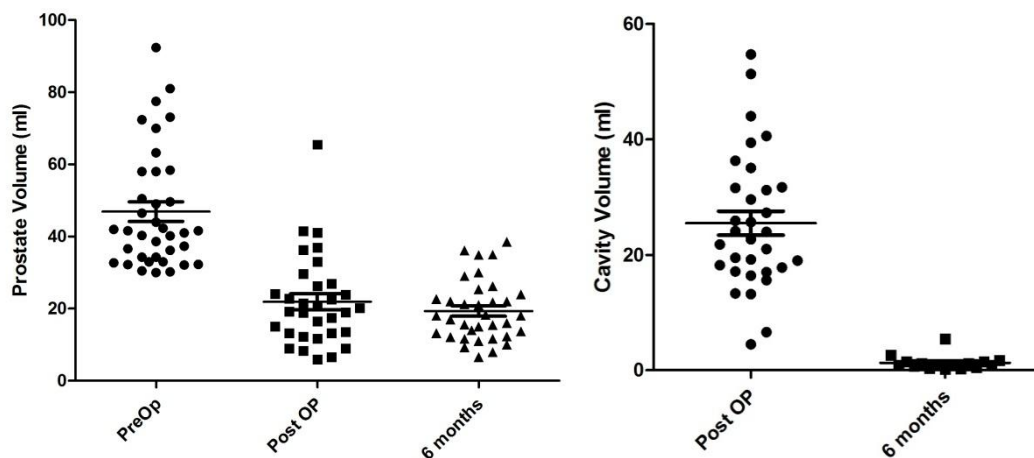
Significant correlation was found between prostate volumes at 6 months follow up with follow up IPSS scores and urine flow rate. ( $p < 0.05$ ) However, no correlation was found between immediate and 6 months cavity size with clinical outcomes.

### Interpretation of results

While prostate volume following surgery, while maintaining significant difference with preoperative volume, did not show significant difference between immediate and 6 months follow up, cavity volume was significantly decreased from  $22.2 \pm 6.4$  ml to  $1.1 \pm 0.6$  ml, indicating active remodeling of the prostate after vaporization.

### Concluding message

While prostate cavity following vaporization may delineate vaporization amount during surgery, long term effects of laser vaporization correlates with actual prostate volume on follow up. This may be due to active remodeling of the prostate which stabilizes over a period of 3 to 6 months.



### Disclosures

**Funding:** none **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics not Req'd:** Informed consent was obtained from all of the patients. **Helsinki:** Yes **Informed Consent:** Yes