

## URODYNAMIC STUDIES FOR ASSESSMENT OF CONTINENCE AFTER CONTINENT CATHETERIZABLE CUTANEOUS URINARY STOMA BASED ON MITOFANOFF PRINCIPLE AND YANG-MONTI TECHNIQUE

### Hypothesis / aims of study

To analyze the static and dynamic urodynamic parameters of the reservoir and conduit affecting continence after continent cutaneous urinary diversion with catheterizable stoma.

### Study design, materials and methods

76 patients who had continent urinary diversion and catheterizable urinary stoma based on Mitrofanoff principle and Yang-Monti procedure using subserous tunnel as continence mechanism were followed up 6 months post-operatively for continence through stoma. The patients were divided into two groups according to stomal continence. Both groups had urodynamic assessment performed via the stoma to assess reservoir capacity, pressure and contractions, efferent limb functional length and uninhibited contractions, static and dynamic maximal closure pressures and leak point pressure.

### Results

Continence rate was 87%. Continent group included 66 patients and incontinent group included 10 patients. In both groups at rest, the reservoir pressure after filling did not exceed 25 cm H<sub>2</sub>O. During peristaltic contraction, the pressure did not exceed 30 cm H<sub>2</sub>O and the duct remained continent. After valsalva maneuver, the reservoir pressure increased up to 34 (+ 7.4) cm H<sub>2</sub>O and leakage occur in 10 patients (13%). Uninhibited contractions were recorded in 54 patients, with insignificant rise in intraluminal pressure during the contractions. In both groups, the efferent tract closing pressure was always higher than the reservoir pressure. The mean of maximal closing pressure at valsalva was 82.5 (+ 4.18) cm H<sub>2</sub>O in the continent group and 61.66 (+ 8.16) cm H<sub>2</sub>O in the incontinent group. The mean functional length of the conduit was 4.95 + 1.62 in the continent group and 2.80 + 1.50 cm in the incontinent group.

### Concluding message

Urodynamic evaluation of continent catheterizable cutaneous stoma after Yang-Monti procedure has a practical significance. Functional length of the conduit is an important factor as regards continence reflecting static & dynamic maximal closure pressure. Higher conduit closing pressure is associated with better continence. Uninhibited contraction of the pouch & peristaltic contraction of the conduit has no effect on continence mechanism.

### Disclosures

**Funding:** ain shamas university **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** ain shamas university **Helsinki:** Yes **Informed Consent:** Yes