

## EVALUATION OF A NEW TECHNIQUE FOR CUTANEOUS CONTINENT URINARY DIVERSION: THE EMBEDDED NIPPLE TECHNIQUE.

### Hypothesis / aims of study

The aim of this study is to evaluate the feasibility and efficacy of a new technique for cutaneous continent urinary diversion: "The embedded nipple technique" (ENT).

### Study design, materials and methods

A prospective study was conducted on twenty patients prepared for continent urinary diversion using ENT. An ileal segment is embedded within the wall of the ileal reservoir. Continence is provided by nipple valve mechanism derived from the tubular resistance of the ileal segment as well as a dynamic mechanism resulting from embeddment within the reservoir wall. Postoperatively, patients underwent imaging and urodynamic evaluation. Continence status and quality of life were assessed using a designed questionnaire (selected from QLQ-C30 and EORTC QLQ-BLM30 models).

### Results

Sixteen males (75%) and four females (25%) underwent cutaneous continent diversion using ENT. The main indication was diversion after radical cystectomy (75%). Postoperative period was uneventful. Mean postoperative follow up time was  $18.6 \pm 7.05$  months. Mean maximal pouch capacity was  $385.5 \pm 153.63$  ml. The pouch pressure at maximal capacity was  $31 \pm 6.52$  cm/H<sub>2</sub>O. Max closure pressure of the efferent limb was  $68.2 \pm 11$  cm/H<sub>2</sub>O. Functional profile length of the efferent limb was  $3.59 \pm 1.29$  cm. Continence (diurnal & nocturnal) was achieved in 95% of patients by clean intermittent catheterization. Re-operation was required for a single incontinent stoma (5%) due to a short nipple. Quality of life questionnaire showed improvement in areas related to catheter use, body image, social functions and daily activities.

### Interpretation of results

The embedded nipple technique creates a pressure segment for continence as evidenced by the max closure pressure and the functional profile length measurements. The mucous lining of the continent stoma tolerates the trauma and provides a natural lubricant for intermittent catheterization. Stability of the nipple depends on: embedding the nipple into the anterior wall of the pouch, fixation of the efferent limb to the external oblique aponeurosis and fixation of the anterior wall of the pouch to the posterior rectus sheath. The embedded nipple provides a supported straight channel for easy catheterization or endoscopy.

### Concluding message

The embedded nipple technique is feasible and effective for cutaneous continent urinary diversion.

### Disclosures

**Funding:** NONE **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Ethics Committe, Faculty of Medicine, Alexandria University **Helsinki:** Yes **Informed Consent:** Yes