Percutaneous Button Cystostomy: A Minimally Invasive Solution for Bladder diversion in children and adolescents

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Background

Percutaneous button cystostomy (PBC) has been suggested for the management of neurogenic bladder-sphincter dysfunction (NBSD) in children and adolescents, when the clean intermittent catheterization is not feasabile.

We modified the original PBC technique described by Subramaniam et al.

This study evaluates the safety and effectiveness of this modified PBC approach in pediatric and adolescent populations.

Methods

Retrospective evaluation of PBC placement (2020-2024).

Main technique implementation: anchoring of the anterior bladder wall to the abdominal wall, under endoscopic control. *Safe and easy insertion* in all kind of bladder.

Outcomes:

1. rate of conversion to open surgery
2. complications
3. tolerance to the device
4. effectiveness in bladder management

Results

A total of 50 patients (pts) were enrolled (32 XY, 18 XX), with a median age of 7.9 years (4.6–13.3).
Mean operative time: 45 ±4.3 minutes.

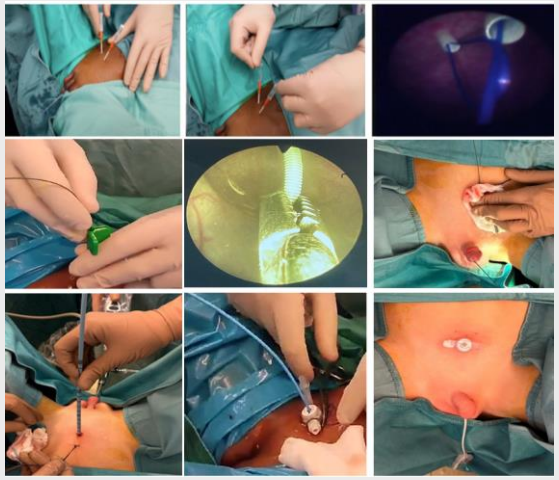
Mean follow-up of 22.9 ± 17 months

1. Conversion to open surgery: none

2. Complications: 9 pts
- 1 pt button cystostomy dislocation
- 2 pts peristomal leakage
- 6 pts non febrile urinary infections

3. Tolerance to the device: 46 pts

4. Effectiveness in bladder management: 46 pts



Implications

PBC is safe and effective in pediatric patients across all ages, with good patients' tolerance