Atypical use of button gastrostomy tube for children with complex colorectal malformations (ileostomy, vesicostomy, vaginostomy)

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Aim

- Gastrostomy feeding tube is sometimes useful in pediatric colorectal malformations
  - Gastrostomy
  - Caecostomy (antegrade colonic enema)

- Aim of this study: to report 3 cases of unusual use of gastrostomy feeding button in the treatment of complex colorectal malformations.
Case 1 = CIPO
Antenatal megacystis + pseudo-Hirschsprung

Failure of rectal washouts
Day 4: omibilical laparotomy, staged colonic biopsies, left transverse colostomy, rectal suction biopsies
• Biopsies: no HD
• Colostomy: effective
• Obstructive symptoms
  • adhésions? CIPO?
• 3 months: laparotomy + transanal approach
  • compressive adhesion section
  • Left colectomy + ERPT
Numerous intestinal obstructions, failure of enteral feeding, parenteral nutrition
Septicemia, pyelonephritis, megacystis, gastric distension and vomitus

2.5 year old: laparotomy, adhesiolysis, jejunal plication, gastrojejunostomy, button vesicostomy

Vesicostomy : used by the mother and removed 8 months later
4 year old : parenteral nutrition, no urological problem
Case 2 = familial total colonic aganglionosis
(brother = TCA)

Day 2: laparotomy, staged ileocolic biopsies, ileostomy

10 months: ileocoloprotectomy by laparotomy + transanal approach
• Post-operative enterocolitis
• Gastrostomy for enteral feeding (12 months)
• Ileostomy closure (14 months)
• Intestinal obstructive symptoms
  • Distal ileum dilatation
    • No anastomotic stenosis, No residual HD
    • Transit time 7 mn!
    • adhesive obstruction?
    • functional obstruction?

• Parent’s choice
  • avoiding cutaneous ileostomy

2 year old

Foley’s ileostomy (Fontan’s procedure)
Button ileostomy used par parents for intestinal decompression (less often for irrigations) and removed 3 years later.

5.5 year old
No recurrence of abdominal distension
Case 3 = prenatal cloacal malformation with hydrocolpos (gemellary pregnancy)

Fetal MRI (29 weeks)  Neonatal sonography (29 weeks)  Neonatal perineum (29 weeks)

29 weeks / 1200 gr
Day 1: echo-guided vesical Foley catheter insertion
Day 3: colostomy + cystoscopy + genitoscopy + endoscopy-guided vesical Foley catheter
Persistant hydrocolpos: left vaginal drainage (echo-guided Foley catheter)
1 month: endoscopy-guided vesical and left vaginal Foley catheter
2.5 months: compressive hydrocolpos with anuria

Button left vaginostomy (Fontan’s procedure)
8.5 months: laparotomy + PSARP (rectal and vaginal pull through) + vaginostomy closure

6 months later
Results

• Button placement was organized for each patient aiming to relieve important symptoms using an easier surgical procedure and avoiding a stoma or a less comfortable probe.

• Procedures were safe and effective.

• No specific complications were noticed.

• Button were removed after few months (8, 36, 6) of successful management.
Discussion

• Button vesicostomy well reported

  Button vesicostomy: 13 years of experience.
  Button cystostomy for bladder drainage: which children can benefit from this device?
  Mic-Key button placement for continent vesicostomy.

• Button ileostomy: no description

• Button vaginostomy: no publication but mentioned in rare papers
Conclusion

• Atypical use of tube gastrostomy button in the field of complex colorectal malformations
  • are few described
  • but should be considered as interesting alternatives