Efficacy of Peristeen transanal irrigation system for neurogenic bowel in the pediatric population: Preliminary findings

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Purpose

To evaluate the efficacy of Peristeen® in pediatric patients with neurogenic bowel.
Peristeen® was approved by the FDA for use in the US in 2012

Peristeen® Anal Irrigation System is an FDA Class II cleared trans-anal irrigation system

Peristeen® is a unique enema system that uses a pump rather than gravity to instill water as a colonic irrigant and utilizes balloon occlusion of the rectum.
Clinical Indication of TAI/Peristeen®

- Third line: Ostomy
- Second line: Sacral nerve stimulation, Appendicostomy/Malone, Transanal irrigation, Manual evacuation, digital stimulation, Suppositories, biofeedback, mini enemas
- First line: Regulation of diet and water intake, psyllium, imodium, laxitives, anal plug

“Guidelines for Management of Neurogenic Bowel Dysfunction in Individuals with Central Neurological Conditions” 2012
A previous study by Christensen et al showed these results:

Feces present in descending colon and rectum before TAI.

Descending colon and rectum empty after TAI.

Peristeen® helps patients:

- Regularly empty their bowels when they choose
- Prevent stool accidents and constipation
- Reduce the possibility of involuntary stool leakage
- By greatly improving the quality of life
Includes:

- Screw top
- Bag

- Pump & control unit
- Catheters with balloon
• The catheter is inserted into the rectum.
• The balloon is inflated.
• The water is pumped in.
• The balloon is deflated.
• Water and stool are evacuated.
Methods

• **Study population:**
  • All pediatric patients with neurogenic bowel referred for failure of one or more other treatment modalities.
  • No patients excluded.

• **Assessment:**
  • Chart review for detailed assessment of primary diagnosis and prior treatment modalities.
  • Prospective data acquisition
    • upon enrollment, and at 3, 6 and 12 months
  • Neurogenic Bowel Dysfunction Scoring Tool (NBDS)
  • Likert Scale for patient/family satisfaction
Results

- Primary diagnosis include:
  - 33 patients with Spina Bifida
  - 6 patients with Cerebral Palsy
  - 2 patients with Tethered Cord
  - 1 patient with Transverse Myelitis, Imperforate Anus, Muscular Dystrophy, & other diagnosis of spine (Tarlov cysts)
- 62 patients referred (as of 8/22/16)
- 45 patients approved received training
- All patients failed 1 or more bowel programs, including:
  - 4 patients with prior ACE procedures
  - 22 patients with prior enema programs
  - 22 patient with oral agents only
- NBDS scores decreased in:
  - 64% in first 3 months of using Peristeen
  - 88% in first 6 months of using Peristeen
  - 100% of patients failing ACE responded to Peristeen
- 3 patients did not respond and underwent ACE procedure
- Patients with prior ACE (n=4) had 100% success with Peristeen®
- 7% (n=3) of patients failed treatment with Peristeen®
Benefits of Peristeen®

- Initially Peristeen® clean out is done every day, but most patients get such good clean out that they can eventually go to every other day.

- Peristeen® significantly reduces the amount of time spent for bowel program (most patients take 30 minutes or less including set-up).

- Most patients can reduce or eliminate bowel medications that they are taking once Peristeen® is established.
Conclusions

1. Peristeen is an effective treatment option for pediatric patients with neurogenic bowel even if prior modalities have failed.

2. Efficacy improves over time.
X-ray taken day at beginning of Peristeen® teaching

Clean out done & Peristeen done daily and then…
X-ray taken 5 days after Peristeen started
Questions
References:


- Guidelines for Management of Neurogenic Bowel Dysfunction in Individuals with Central Neurologic Conditions. Multidisciplinary Association of Spinal Cord Injured Professionals. Developed 2012


