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Disclosure Information

- I have no disclosures

Objectives

- Verbalize the current methods of gastrostomy placement and discern the differences in post-operative management.
- Verbalize the appropriate best practices in managing common challenges seen with gastrostomy placement including leakage, granulation tissue and irritant dermatitis
- Verbalize the appropriate practices in managing gastrostomy complications including cellulitis and dislodgement
Background

• Children require feeding tubes for a variety of reasons
  • Difficulty taking enough calories/nutrition or hydration by mouth for adequate growth
  • Eating or drinking by mouth is unsafe (i.e. aspiration) or not possible (i.e. anomaly of the GI tract)
  • Need a way to vent the stomach after a surgical procedure for gastroesophageal reflux (Nissen fundoplication)

• Medical Problems associated with feeding difficulties and dysphagia*
  • Prematurity
  • Congenital syndromes (i.e. Down Syndrome)
  • Cleft lip and palate and other craniofacial disorders
  • Gastroesophageal reflux
  • Congenital cardiac conditions
  • Chronic lung disease/BPD
  • Failure to thrive
  • Autism/pervasive developmental disorders

NG tube vs. G-tube vs. J-tube

• Nasogastric (NG) tube
  • Short-term feeding access
  • Relatively noninvasive
  • Bolus and continuous feeds

• Gastrostomy tubes
  • Longer term feeding access (> 3 months)
  • Surgically placed access
  • Bolus and continuous feeds

• Jejunostomy tubes
  • Longer term feeding access (> 3 months) who do not tolerate gastric feeds
  • Gastroparesis, obstruction or resection of proximal portion of GI tract, severe reflux
  • Surgically placed access
  • Continuous feeds ONLY
Skin Level “Buttons”
- Types:
  - Mic-Key Button
  - Mini One Balloon Button
  - Bard Button
  - GJ tubes
- Commonly used in kids
- Different sizes:
  - French – diameter of tube
  - Length – in centimeters
- Generally, diameter does not change but length increases as child grows

Long gastrostomy tubes
- Types:
  - Mic gastrostomy
  - PEG gastrostomy
  - Foley (temporary)
- Used on older kids with thicker abdominal walls
- Tube can adapt to various lengths

Surgical placement – laparoscopic approach
- Laparoscopy used to bring stomach to abdominal wall
- Typically involves suturing the outside of the stomach to the inside of the abdominal wall to facilitate tract development
  - Takes 6 weeks for tract to fully mature
- Occasionally, T-fasteners are used to help hold the stomach to the abdominal wall
  - These are usually removed within 3-7 days post-op (surgeon dependent)
Surgical placement – endoscopic approach

- “Pull technique”
- Uses endoscopy for visualization
- Stomach is pulled up to abdominal wall by PEG tube
- No retention sutures
- Takes ~3 months for tract to mature


Surgical placement – jejunostomy

- Typically done laparoscopically
- Two different techniques
  - Lap assisted (similar to G-tube placement)
    - Create a hole in the Jejunum and then sutured to abdominal wall
  - Creation of Roux-en-Y
    - Divide bowel and bring one loop up to abdominal wall, then create an anastomosis slightly lower on the limb to provide continuity of bowel


Acute post-operative complications

- Not tolerating feeds
  - May need slower feed advancement plan
  - Rarely, the stomach comes separated from abdominal wall
- G-tube becomes dislodged within first 6 weeks of surgery
  - Family or team should immediately insert a foley (same size as G-tube) into the tract
  - Tract can close very quickly (within minutes)
  - If unable to get the same size foley in the tract, then okay to attempt a smaller size
  - Replacement of a new tube in a “fresh” tract should be done by Pediatric Surgery
  - If tube is successfully inserted, confirm placement with fluoror tube study
- Leaking G-tube

Questions/Discussion

• Email: richele.koehler@childrenscolorado.org

References:


