A Retrospective Investigation of Surgical Feeding Access in Bariatric Patients

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Introduction

- Bariatric surgeries such as Sleeve gastrectomy and Roux-en-Y gastric bypass (RYGB) are commonly performed procedures. Alteration of gastrointestinal anatomy with these bariatric procedures can create challenges in subsequent patient management. Particularly, the placement of enteral feeding access such as gastrostomy (G-tube) or jejunostomy (J-tube) tubes can be challenging in this patient population.

- Currently, there are no guidelines regarding the placement of feeding access after bariatric surgery. Additionally, there is concern that sleeve gastrectomy patients may have higher incidence of aspiration, and it is unknown which method of surgical feeding access increases the risk of this complication.

- This study aimed to investigate trends in feeding tube placement in remote bariatric surgery patients and to evaluate the role of surgical feeding tube location on risk of aspiration in sleeve gastrectomy patients.

Methods

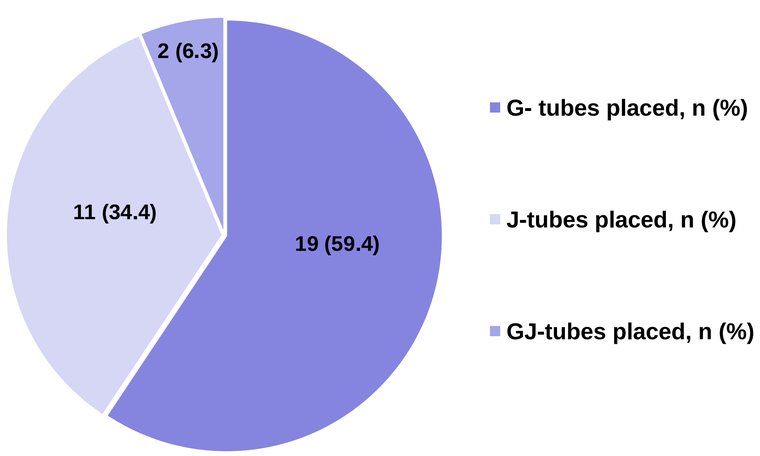
- A retrospective multi-center chart review was conducted on adult patients with a history of either sleeve gastrectomy (gastric sleeve) or Roux-en-Y gastric bypass (RYGB) who subsequently required feeding access remote from their bariatric surgery from January 1, 2019 – January 1, 2024.
- Excluded patients were prisoners, pregnant women, and those under 18 years of age.
- Patient demographic and anthropometric data were recorded. Other data obtained were bariatric surgery history, location, approach of, and service providing feeding tube placement along with associated complications, reason for emergency department visit, hospital admission and length of stay, presence of aspiration pneumonia, days on a ventilator, and in-hospital mortality.

Data

Table 1. Patient Demographics and Characteristics of Feeding Tube Placements

Female Gender, n (%)	27 (93.1)
Age, avg (sd)	51.1 (11.3)
BMI, avg (sd)	35.1 (13.6)
Patients with a history of RYGB receiving a G or J tube, n (%)	24 (75)
Feeding Tube Complication Rate, n (%)	22 (68.8)
Leaking/Clogging Feeding Tubes, n (%)	15 (46.8)
Dislodged/Displaced Feeding Tubes, n (%)	11 (34.4)

Figure 1. Feeding Tube Placements by Type



Results

- A total of 29 patients were included with 32 feeding tubes placed. The patients were predominately female (n=27/29, 93.1%), with an average age of 51.1 +/- 11.3yrs and BMI of 35.1+/- 13.6 at the time of feeding tube placement. G tubes (n=19/32, 59.4%) were placed most commonly, followed by J tubes (n=11/32, 34.4%) and GJ tubes (n=2/32, 6.3%). Due to complications, 3 patients had feeding tubes placed twice. G and J tubes were mostly placed in patients with history of a RYGB (n=24/32, 75.0%). The majority were placed by general surgeons. The 2 GJ-tubes placed were in a patient with history of RYGB and the other with history of a gastric sleeve, and these procedures were performed by interventional radiology. Feeding tube associated complications were found in 68.8% of cases. The most common complications were leakage or clogging, which occurred in 46.8% of cases and occurred more frequently in patients who received a G-tube. 34.4% of feeding tubes became displaced or dislodged or required exchange or replacement.
- Our study identified 2 patients who developed aspiration pneumonia secondary to feeding tube placement, both received J-tubes and had a history of a gastric sleeve.

Conclusions

This study describes placement of feeding tubes in patients who had remote bariatric surgery and elucidates a need for consistency in management of these patients, which is a challenging and understudied issue. Additionally, our sample size was limited due to a frequent underreporting of bariatric surgery history, and larger studies are needed to develop guidelines for standardization of care practices in these patients.