Angiocatheter Guided Closure of Gastrocutaneous Fistula Tract in the Absence of Fluoroscopy

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INTRODUCTION

- Gastrocutaneous fistulas (GCF) have been a well recognized complication following the removal of percutaneous gastric feeding tubes[1]
- Continuous drainage of gastric acid onto the surrounding skin produces extreme pain and irritation for these unfortunate patients
- No universally accepted method of repair exists
  - Reported strategies range from simple external sutures to radical gastrectomies[2]
  - Endoscopic repair has recently became of great interest as it is less invasive with case studies reporting promising results[1]
- We describe a unique case in which a GCF was endoscopically closed using an Ovesco OTSC® with guidance from an externally inserted angiocatheter in the absence of fluoroscopy

CASE BACKGROUND

- The patient is a 65-year-old female with a history of a large right CVA 1 year ago resulting in residual deficits including left sided hemiplegia and chronic dysphagia resulting in severe malnutrition
- Her dysphagia has been managed with enteral feedings via percutaneous tube feeds
- Since her CVA, she had undergone 8 feeding tube exchanges due to recurrent obstructions including a recent replacement via new tract 6 months ago due to mal-positioning
- Unfortunately her previous tract did not close and she subsequently developed a GCF
- Following failed conservative measures, and deemed too high-risk for surgical repair, endoscopic closure was pursued

ENDOSCOPIC INTERVENTION

- EGD revealed a small area of erythema within the gastric antrum suggestive of the internal orifice (Figure 1) however certainty was questioned
- To confirm, a 22-gauge angiocatheter was percutaneously inserted through the GCF and endoscopically confirmed to enter the gastric antrum (Figure 2)
- Using the angiocatheter as a target, a 12/6 GC Ovesco OTSC® was positioned over the catheter and deployed (Figure 3)
- No complications were encountered. Cessation of cutaneous gastric output was noted the following day with documented dermal healing 3 days later

Figure 1: Appearance of questionable gastrocutaneous fistula site within gastric antrum.

Figure 2: Visualization of 22-gauge angiocatheter inserted cutaneously through gastrocutaneous fistula.

Figure 3: Endoscopic closure of gastrocutaneous fistula following deployment of GC Ovesco OTSC®.

CONCLUSIONS

- GCF is an unfortunate complication of percutaneous gastric feeding tubes resulting in significant morbidity
- In patients who fail conservative therapy with acid suppression, surgical intervention is often indicated
- However in patients deemed too high surgical risk, closure attempt with endoscopic repair should be considered
- Recent case studies have reported excellent outcomes with endoscopic approaches[3,4]
- We have described a unique method of endoscopic intervention in patients with a GCF with a discrete gastric orifice without the use of fluoroscopy
- Given the relative low risk with potential cure, endoscopic repairs should be consider first-line intervention for GCFs

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