Stent placement for delayed conduit obstruction at hiatus after esophagectomy

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We report a case of a 62-year-old male who presented with shortness of breath after having undergone a modified McKeown esophagectomy 6 months after induction chemotherapy for cT3N1 adenocarcinoma of the distal esophagus. A chest computed tomography demonstrated a dilated gastric conduit with evidence of hiatal obstruction and aspiration pneumonia (Fig. 1A). Patient was subsequently intubated for respiratory distress, but eventually extubated three days later. Barium esophagram revealed a dilated gastric conduit with poor emptying (Fig. 1B). Patient underwent endoscopic evaluation revealing a dilated conduit with extensive food and gastric debris. The pylorus was found to be widely patent. However at the level of the hiatus just proximal to the pylorus, there was evidence of obstruction with passage of gastric contents impeded by redundant gastric conduit that formed a shelf at the hiatus with a resulting valve-like effect. A 10 cm × 18 mm Alimaxx™ stent was then placed across the area obstructed by the flap to just proximal to the pylorus (Fig. 1C). The area of obstruction was effectively opened with clearance of gastric content immediately evident. The patient subsequently underwent a barium swallow the succeeding day showing passage of contrast into the duodenum across the hiatus (Fig. 1D). The patient was started on clears and then was eventually discharged tolerating a soft solid diet. The patient remains free of obstructive symptoms for the past 12 months.

Previous studies have reported an incidence for delayed gastric emptying post-esophagectomy of up to 50% [1-4]. Vagotomy, torsion of the stomach, size and compression of conduit and lack of accompanying drainage have been implicated in delayed gastric emptying. Patients who undergo intrathoracic anastomosis are more prone to gastric emptying problems from a redundant conduit as seen in our patient [5]. Our case report demonstrates that a fully covered stent is an effective treatment for delayed obstruction due to a redundant gastric conduit. The stent effectively relieves the obstruction so that regurgitation and aspiration pneumonia are avoided. The stent is also well tolerated by the patient and can be left in place for extended periods of time.

In conclusion, our case report demonstrates the use of a stent to treat delayed gastric conduit obstruction after esophagectomy due to a redundant conduit.

References