ISDEAS ABSTRACT – THE COCKEREL AWARD

Upper Gastrointestinal Disaster Management

Authors: Dr Preekesh Patel (presenter) and Associate Professor Michael Talbot

A 52 year old female underwent laparoscopic sleeve gastrectomy 12 years previously. She subsequently developed symptoms of vomiting, reflux and persisting weight loss and was diagnosed with a sleeve stenosis. She underwent a laparoscopic hiatus hernia repair reinforced with BioA mesh and gastrogastrostomy procedure to treat the sleeve stenosis.

After an unremarkable recovery she presented with sepsis and underwent a laparoscopic washout and repair and ligamentum teres patch of a leak in the sutured gastrotomy closure that had been used to introduce the stapler for the gastrogastrostomy procedure. Although the external drain drained nothing, sepsis recurred and it was believed that the she had developed a leak again at this site. At re-endoscopy no other defect was seen, and a pigtail drain was passed into the this previously repaired suture line to drain any potential sepsis.

Due to the development of respiratory symptoms the development of pleural effusions that were drained, and persisting sepsis without an obvious cause the patient was transferred to our unit for further management. Repeat endoscopy was performed and showed an inflammatory stenosis at the angularis, an appropriately positioned pigtail drain and a mild inflammatory stenosis at the hiatus repair site. Despite a strong belief that there was a hole at the top of the sleeve staple-line, it could not be located.

A CT scan of chest and abdomen showed fairly small effusions and a marked inflammatory process involving the left lower lobe. As the fluid draining from the left chest was brown in colour our cardiothoracic team was consulted and a left thoracotomy and decortication was performed revealing an enteric stained abscess cavity.

Due to lack of clinical improvement, and a suspicion of a second undiscovered leak from the sleeve tube, she underwent a laparoscopic exploration. The defect in the midpoint of the stomach was dissected out and retrogastric dissection continued up to the hiatus, along a fistula tract that ran up behind the stomach up towards the left diaphragm. A second defect just below the hiatal repair was discovered, with minimal evidence of a lateral collection, and it seemed that this defect had been discharging its contents into the left chest. While the original plan had been to perform a gastric bypass and a fistula-jejunostomy of any second defect, there was insufficient space proximally to perform a fistula-jejunostomy anastomosis and the sleeve tube was to oedematous to be transected without necessitating to perhaps a total gastrectomy which would have required an intra-thoracic anastomosis. The mid-gastric lateral wall defect was widened and a roux fistula-jejunostomy was

performed to treat the stenosis which would have been driving the proximal leak, and the proximal defect was closed purse-string fashion around a rectal tube.

This case highlights the risks of sleeve gastrectomy, revisional hiatus hernia repair and upper gastrointestinal/bariatric disaster management principles. The main lessons from this case are regarding the possibility of staple line electrocautery leading to delayed thermal injury/leak and the concept of sepsis draining through the path of least resistance.