CHAPTER 26

GASTRO ESOPHAGEAL REFLUX DISEASE AND SURGICAL TREATMENT

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HISTORICAL NOTE

Giovanni Batista Morgagni and Vincent Alexander Bochdalek lent their name to the two well-known types of congenital diaphragmatic hernia.

It was Sir Ashley Cooper who in 1824 mentioned that protrusion of the viscera through the diaphragm also could occur at the natural anatomic apertures allowing the passage of esophagus, vena cava, aorta, or through unnatural openings caused by trauma to the diaphragm.

Henry Bowditch, famous Harvard physiologist in Boston, published in 1853 a review of all known cases of diaphragmatic hernia - all post-mortem cases - and was the first to report of what is now known as a para-esopohageal hernia :*"...esophagus presented a very abrupt change of its course. In all, it descended through the diaphragm as usual but turned back toward the left to enter the abnormal aperture caused by the hernia and to join the stomach in the chest."*

Åke Ackerlund from Stockholm coined the term *hiatal hernia* in 1926.Carl Rokitansky in Vienna was the first to demonstrate a correlation between esophagitis and gastro-esophageal reflux caused by gastric fluid.

Angelo Soresi in Milano published in 1919 the first elective surgical repair in 3 patients suffering from serious complaints and made the point that diaphragmatic hernias could lead to uncomfortable life and that even premature death could be the consequence. His report described in detail the used technique, via abdominal route, to close the gap in the diaphragm, in other words already at that time recognizing the importance of closing the diaphragm without tension.

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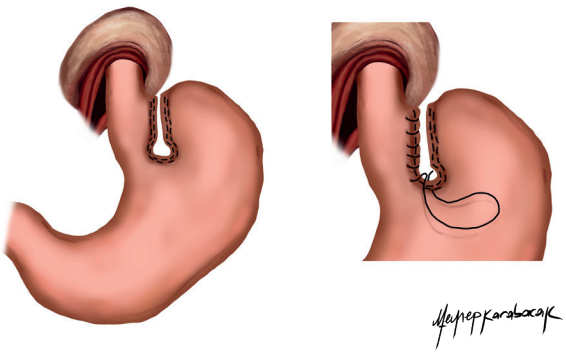

Fig 44 Laparoscopic Collis- Nissen: result of the firing of the linear stapler with the creation of the neoesophagus .Over sewing of the staple line

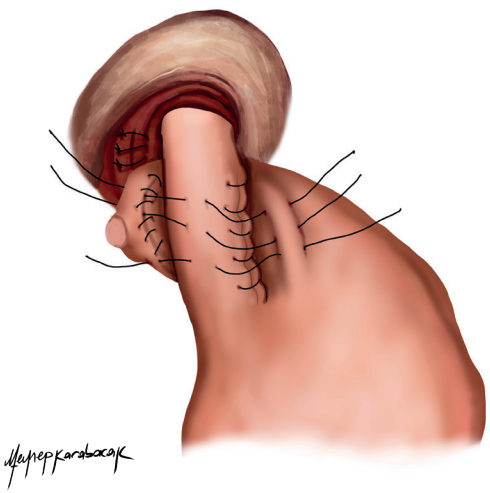

Fig 45 Laparoscopic Collis- Nissen: nissen fundoplication around the neoesophagus

More surgeons are making use of the technique of wedge resection of a small part of the fundus as described in the section on para-esophageal hernia.

Postoperative management is the same as for a classic Belsey or Nissen fundoplication. But because of the presence of a suture line, attention must be paid to the possibility of a breakdown of the suture line. A water soluble contrast study the day after surgery may show a very early leak although mostly leaks will only appear after a few days.

Should a leak be suspected by clinical signs of infection, a contrast study has to be repeated. The vast majority of these leaks are contained as the suture line is wrapped in the fundoplication and will respond to conservative management strategies i.e. nil by mouth and antibiotics. The contrast study should be repeated after 2 weeks to assess whether the initial leak persists. In rare cases, operative exploration and repair may be required. Exploration is best approached through an abdominal approach so as not to disrupt the diaphragmatic repair.

Results

The results of the Collis-Belsey procedure as reported by Pearson on 25 patients with a follow up period of at least 5 years from their operation, showing excellent clinical results in 24 of these patients being confirmed objectively with upper endoscopy and barium swallow. Mattioli et all published their experience with 61 Collis – Nissen procedures Postoperative mortality was 1.5%. After a follow up of 96 months dysphagia was present in 3%, reflux symptoms in 4.7%, anatomic recurrence in 3% and patient satisfaction was reported in 94%.

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