Incarcerated giant hiatal hernia

Fig. 1 Chest radiograph showing a giant hiatal hernia with an air-fluid level in an 89-year-old man with valvular heart disease and third-degree atrioventricular block.

Fig. 3 Laparoscopic view revealing a large diaphragmatic hiatus with total gastric herniation.

Fig. 4 Laparoscopic view showing the proximal stomach with a dark-red hue contrasting with the distal stomach with a normal pink color.

Fig. 2 Endoscopic image of the proximal stomach showing a large longitudinal ulcer, a congestive and dark-red surrounding mucosa suggesting gastric ischemia and gastric stasis.

An 89-year-old man with valvular heart disease and third-degree atrioventricular block with a permanent pacemaker presented with a 1-day history of nausea, coffee ground emesis, and dyspnea. Physical examination revealed hyperthermia of 37.8°C, oxygen saturation measured by pulse oximetry of 94%, and hemodynamic stability. Laboratory tests showed a hemoglobin level of 13.9 g/dL, leucocytosis of 13 640/mm³ with neutrophilia, and a

C-reactive protein level of 3.8 mg/L. A chest radiograph showed a giant hiatal hernia with migration of the entire stomach with an air-fluid level inside (● Fig. 1). After orotracheal intubation, upper gastrointestinal endoscopy was performed which revealed signs of mucosal ischemia of the proximal gastric body with a 5-cm-long ulcer just distal to the esophagogastric junction (● Fig. 2). The patient was referred to surgery which revealed total gastric

herniation (● Fig. 3) with incarceration and signs of ischemia (● Fig. 4) that reversed spontaneously after reduction of the hernia sac. A laparoscopic hernia repair (● Fig. 5) was performed followed by a fundoplication (● Fig. 6).

Giant hiatal hernia represents 5–10% of all hiatal hernias and includes at least 30% of the stomach in the chest [1, 2]. Most frequently, a giant hiatal hernia is a mixed hernia composed of a sliding and a paraesophageal component [2]. Patients generally present with pain, heartburn, regurgitation, dysphagia, cough, dyspnea, vomiting, and anemia [2, 3]. The incidence of incarceration and strangulation is low [2]. Usually, in symptomatic patients, the definitive management is surgical repair [4]. Furthermore, owing to the risk of hemorrhage, strangulation, volvulus, and perforation in paraesophageal and mixed hernias, elective repair is recommended [5].

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Fig. 5 Laparoscopic view showing closure of the crural defect after reduction of the stomach into the abdominal cavity and complete excision of the hernia sac from the mediastinum.

Fig. 6 Laparoscopic view depicting the final result after gastric hernia reduction and the fundoplication.

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