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Large Oesophageal Epiphrenic Diverticulum Resected by Transhiatal Robotically-Assisted Approach - Case Report

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Abstract

Introduction: Epiphrenic diverticula (ED) represent about 20% of oesophageal diverticula. They are considered to be pulsion diverticula, characterized by outpouchings of the oesophageal mucosa originating in the distal 10 cm of the oesophagus and are frequently associated with spastic oesophageal dysmotility. The most frequent clinical manifestations of ED are dysphagia, regurgitations and chest pain. Only symptomatic diverticula should be treated by surgery. The surgical procedure can be performed minimally invasively by robotic approach and consists of diverticulectomy, hiatus calibration and an antireflux procedure, usually adding an esophagomiotomy as well.

Case-report: We present the case of 43-year-old male patient who was admitted for a four-month history of epigastric pain, pyrosis and regurgitations. Preoperative investigations have shown an epiphrenic diverticulum 6 cm large in diameter. A robotic-assisted transhiatal diverticulectomy with a linear endostapler, hiatal calibration and a Nissen-Rossetti fundoplication were performed using a three-arm da Vinci Robotic System. Operative time was 150 min. Postoperative course was uneventful and the patient was discharged on postoperative day 9, without complications. Ten days later, he came back and was readmitted under emergency status for right chest pain, dyspnoea and fetid breath, being diagnosed with a right empyema secondary to a delayed fistula of the oesophageal suture line. A right minimal pleurotomy and pleural drainage under local anaesthesia were performed and an intravenous antibiotherapy was started with complete remission of symptomatology, the patient remaining asymptomatic after 18 months of follow-up.

Conclusions: Robotic approach is a feasible and safe minimally invasive surgical option in the treatment of selected cases of ED. We consider transhiatal abdominal robotic approach possible in almost all cases of ED, regardless of size, thus avoiding thoracic approach and its possible major complications. The most common serious complication after surgery of ED is postdiverticulectomy suture line fistula, but if properly and rapidly diagnosed it could be conservatively treated with very good results.

Key words: epiphrenic diverticulum, robotically-assisted surgery, transhiatal approach

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