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CASE REPORT

Coughing after drinking

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A 60-year old man underwent a transthoracic subtotal oesophagectomy with gastric tube reconstruction after neo-adjuvant chemoradiotherapy for a distal T3N2M0 oesophageal adenocarcinoma. On the sixth postoperative day a contrast swallow study showed an intact oesophagogastric anastomosis. One week later the patient developed chest pain, fever and coughing after intake of fluids. A computer tomography (CT)-scan of the chest showed a fistula between the gastric tube and trachea, just above the carina, without signs of mediastinitis or abscess (Figure 1). The fistula was endoscopically confirmed on the ventral side of the oesophagogastric anastomosis. An oesophageal stent was inserted to cover the fistula and the patient was readmitted to the intensive care unit where he had an uneventful recovery (Figure 2). A follow-up CT-scan and contrast study did not show any leakage . The stent was removed after 6 weeks without any problems. A fistula between the trachea and gastric tube is a rare but serious complication of subtotal oesophagectomy. Anastomotic leakage with inflammatory involvement of the trachea is a well-known cause of benign tracheo-oesophageal fistulas.[1] Other causes are oesophageal dilation, ischemia or trauma of the trachea secondary to surgical dissection in the upper mediastinum and cuff-induced tracheal necrosis during prolonged endotracheal intubation. In our patient, the fistula most likely developed due to leakage of the anastomosis since the fistula tract was visible on the ventral side of the oesophagogastric anastomosis by endoscopy. Neo-adjuvant chemoradiotherapy has been associated with an increased risk of developing a benign tracheobronchial fistula after subtotal oesophagectomy[2] and may well have been a contributing factor in our patient. A typical symptom of a tracheo-oesophageal fistula is coughing associated with oral intake, but recurrent pneumonia and mediastinitis may also occur. The diagnosis is usually confirmed by contrast studies; endoscopy and bronchoscopy are optional. The management of benign tracheo-oesophageal fistulas used to be surgical.[1] Nowadays, endoscopic closure of the defect with a self-expandable stent, has become a viable alternative. It is a less invasive, safe and reliable alternative, although stent migration can occur.[3,4] Bronchoscopic closure of a tracheo-oesophageal fistula has recently been described as well.[5]

Figure 1. A CT scan of the chest showing the tracheo-oesophageal fistula.

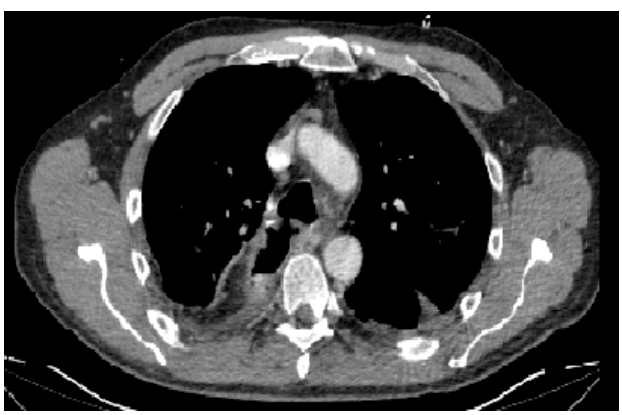
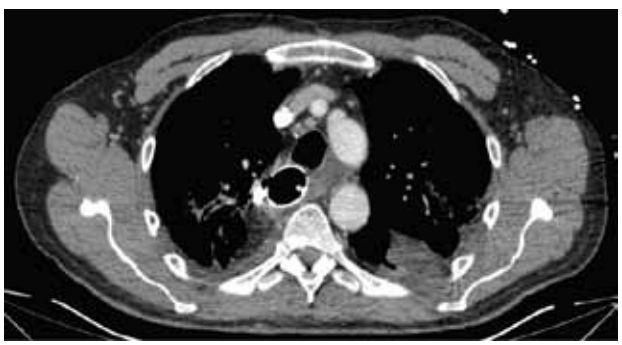


Figure 2. A CT scan of the chest with the stent covering the tracheo-oesophageal fistula in situ.



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