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IMAGES IN EMERGENCY MEDICINE

Airway

Man with shortness of breath after meal

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1 | CASE PRESENTATION

A 60-year-old man was referred to the emergency department because of severe dyspnea after a meal. He had undergone endoscopic gastric conduit reconstruction via the posterior mediastinal route after esophagectomy a decade ago. On admission, he had tachypnea and a respiratory rate of 40 breaths/minute, with shortness of breath. Chest x-ray revealed no infiltration in both lungs with a dilated mediastinum (Figure 1). Because airway obstruction was suspected, the patient was immediately intubated.

FIGURE 1 Chest x-ray showing a dilated mediastinum in the emergency department

FIGURE 2 Computed tomography showing tracheal compression caused by a dilated gastric conduit

2 | DIAGNOSIS

Tracheal compression caused by a dilated gastric conduit.

Computed tomography revealed tracheal compression caused by a dilated gastric conduit in spite of a positive end-expiratory pressure of 10 cm H_2O (Figure 2). The gastric conduit dilation and tracheal compression disappeared the following day (Figure 3A,B).

Reconstructed gastric conduit in posterior mediastinum is common after esophagectomy.[1] Despite its relative safety,[2] tracheal compression can occur because of the trachea's proximity. Gastric conduit dilation is reportedly caused by recurrent cancer, gastric conduit

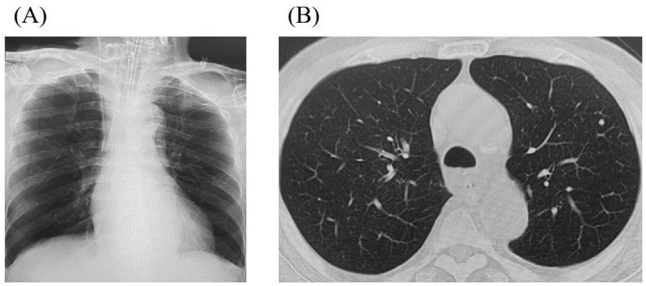

FIGURE 3 Chest x-ray (A) and computed tomography (B) did not show a dilated mediastinum and tracheal compression 1 day after the admission

hernia, and paraconduit hernia.[3,4] However, this patient did not show these signs and admitted only moderate overeating. It is important to note dilated gastric conduit in the posterior mediastinal route can cause airway obstruction without mechanical obstruction or hernia.

INFORMED CONSENT

A written informed consent was obtained from the patient.

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REFERENCES

1. Kikuchi H, Endo H, Yamamoto H, et al. Impact of reconstruction route on postoperative morbidity after esophagectomy: Analysis of esophagectomies in the Japanese national clinical database. *Ann Gastroenterol Surg*. 2022;6:46-53.
2. Yang J, Xu C, Lian D, et al. Esophageal reconstruction: posterior mediastinal or retrosternal route. *J Surg Res*. 2016;201:364-369.
3. Chung SK, Bludevich B, Cherng N, et al. Paraconduit hiatal hernia following esophagectomy: incidence, risk factors, outcomes and repair. *J Surg Res*. 2021;268:276-283.
4. Lee AHH, Oo J, Cabalag CS, Link E, Duong CP. Increased risk of diaphragmatic herniation following esophagectomy with a minimally invasive abdominal approach. *Dis Esophagus*. 2021.

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