



## Congenital broncho-esophageal fistulas in adult patients

To the Editor,

Fistulas connecting the esophagus to the respiratory tract can be identified in the neonatal period. However, they are frequently not observed until well into adult life (1). To treat these fistulas, surgical repair is indicated as soon as the fistula is identified.

A 54-year-old man consulted our clinic for recurring hemoptysis. Computed tomography (CT) showed a mass effect in the right lower lobe (Figure 1a). Fluorodeoxyglucose uptake was 5.6 on positron emission tomography (PET/CT). Esophagoscopy showed a possible fistula at the 31-cm mark, leading to a decision to perform a thoracotomy (Figure 1b). The right thoracotomy approach showed the presence of a fistula tract that was 4 cm long between the middle third of the esophagus and the intermediary bronchus (Figure 1c). The fistula tract was excised and its two ends closed by primary repair (Figure 1d).

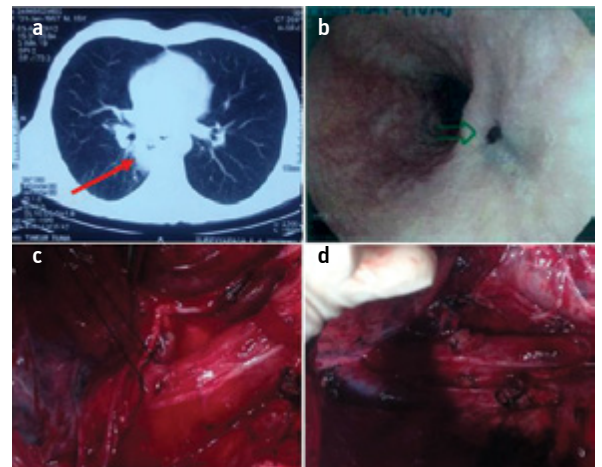
A 55-year-old woman had been experiencing dyspnea, expectoration, and fever for approximately two years. CT showed a hypodense lesion in the right pulmonary lower lobe. Bronchoscopy showed a fistula opening that was 0.5 cm in diameter and 2 cm distal to the main carina. Esophagoscopy showed a fistula tract ending in a wide diverticular opening at the 29-cm mark. A 5-cm long fistula was identified between the middle third of the esophagus and the upper lobar bronchus via right thoracotomy. The fistula tract was stapled at both ends and excised. Both patients were discharged in the absence of any complications.

Congenital broncho-esophageal fistulas are very rarely encountered in adults (2); the largest reported series included 100 pediatric and adult cases (3). Diagnoses are most frequently made in the third decade of life, with no difference in frequency between the sexes (4). Coughing follo-

wing oral fluid intake (Ono's sign), which is the most characteristic sign, is seen in approximately 65% of cases (5).

The most frequently used and most sensitive diagnostic method is barium contrast esophagus radiography. However, narrow fistulas can be missed during the first examination, and radiography may have to be repeated after repositioning the patient. Despite the relatively low sensitivity of both esophagoscopy and bronchoscopy, the fistula opening was clearly seen during esophagoscopy in our patients. Postoperative complications and recurrence are reportedly rare(3), and the two present patients showed no postoperative complications over a six-month follow-up.

The most effective treatment is surgery, which should be performed as soon as the diagnosis is established. A simple ligation may end years of chronic infection.



**Figure 1. a-d.** Image of a right lower lobe mass (indicated by the red arrow) on lung computed tomography (CT), accompanied by infiltration with irregular contours (a). Image suspect for a fistula at the 31-cm mark during esophagoscopy (b). Fistula tract connecting the esophagus to the intermediary bronchus as seen during surgery (c). Appearance of the fistula tract following repair (d).

**Address for Correspondence:** Levent Alpay, Department of Thoracic Surgery, Süreyyapaşa Training and Research Hospital, İstanbul, Turkey  
E-mail: leventalpay@yahoo.com

**Received:** 20.1.2013

**Accepted:** 11.3.2013

© Copyright 2014 by The Turkish Society of Gastroenterology • Available online at [www.turkjgastroenterol.org](http://www.turkjgastroenterol.org) • DOI: 10.5152/tjg.2014.4884

**Ethics Committee Approval:** N/A.

**Informed Consent:** Written informed consent was obtained from patient who participated in this study.

**Peer-review:** Externally peer-reviewed.

**Author contributions:** Concept - L.A.; Design - T.L.; Supervision - V.B., İ.Y.; Resource - L.A.; Materials - L.A., T.L.; Data Collection&/or Processing - T.D.; Analysis&/or Interpretation - T.D.; Literature Search - S.K., T.D.; Writing - S.K., T.D.; Critical Reviews - V.B., İ.Y.

**Conflict of Interest:** No conflict of interest was declared by the authors.

**Financial Disclosure:** The authors declared that this study has received no financial support.

**Levent Alpay, Tunç Laçın, Serda Kanbur, Talha Doğruyol, Volkan Baysungur, İrfan Yalçınkaya**

Department of Thoracic Surgery, Süreyyapaşa Training and Research Hospital, İstanbul, Turkey

## REFERENCES

1. Braimbridge MV, Keith HI. Oesophago-bronchial fistula in the adult. *Thorax* 1965; 20: 226-33. [\[CrossRef\]](#)
2. Su L, Wei XQ, Zhi XY, Xu QS, Ma T. Congenital bronchoesophageal fistula in an adult: A case report. *World J Gastroenterol* 2007; 13: 3776-7.
3. Risher WH, Arensman RM, Ochsner JL. Congenital bronchoesophageal fistula. *Ann Thorac Surg* 1990; 49: 500-5. [\[CrossRef\]](#)
4. Lazopoulos G, Kotoulas C, Lioulas A. Congenital broncho-esophageal fistula in the adult. *Eur J Cardiothorac Surg* 1999; 16: 667-9. [\[CrossRef\]](#)
5. Azoulay D, Regnard JF, Magdeleinat P, Diamond T, Rojas-Miranda A, Levasseur P. Congenital respiratory-esophageal fistula in the adult. Report of nine cases and review of the literature. *J Thorac Cardiovasc Surg* 1992; 104: 381-4.