

**CASE REPORT**

**Congenital bronchoesophageal fistula in an adult: A case report**

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**Abstract**

Bronchoesophageal fistulas are usually diagnosed in the neonatal period. As such, the condition is rare in adults. We present a case of a congenital bronchoesophageal fistula in a 62-year-old man with the complaint of severe bouts of cough and choking after swallowing liquid. His workup included a barium esophagogram that revealed a fistula between the esophagus and a right lower lobe bronchus. The diagnosis should be considered in certain individuals with suggestive symptomatology and unexplained respiratory pathology. The fistula was divided and resected, The patient had an uneventful recovery.

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**Key words:** Bronchoesophageal fistula; Congenital; Diagnosis; Treatment


**INTRODUCTION**

Congenital bronchoesophageal fistula (BEF) is usually associated with esophageal atresia and is readily diagnosed in infancy. But if it is not associated with esophageal atresia, it may persist until adulthood. We present a case of a 62-year-old man with congenital BEF. The patient was treated surgically, with ligation and resection of the fistula. The patient had an uneventful recovery and tolerated a regular diet without coughing at the time of his discharge.

**DISCUSSION**

Congenital BEF or tracheoesophageal fistula (TEF) were first reported by Negus in 1929[1]. These congenital fistulas are still rare in adults[2,3]. Diagnosis can be difficult because of the nonspecific nature of the symptoms. Benign bronchoesophageal fistulas can remain undiagnosed for years. Bouts of coughing when swallowing liquids (Ohno’s sign) are reported to be pathognomonic for this condition and present in 65% of cases[4]. The duration of symptoms has been reported to vary from 6 mo to 50 years before diagnosis[5,6]. One review reported a patient’s condition diagnosed at the age of 83[6]. The congenital nature of the fistula is suggested by the absence of adherent lymph nodes[7] and past or present surrounding inflammation[8], by
the presence of a mucosa and definitive muscularis mucosa within the fistulous tract\(^8\), and by the patient's history\(^9\). Conventional barium esophagography is considered to be the most sensitive test for diagnosing tracheoesophageal or bronchoesophageal fistula\(^{[4,7,9,10]}\). Esophagoscopy and bronchoscopy may not always demonstrate the fistulous orifice, but these procedures may help us chose modus operandi\(^{[4,6,7]}\). CT scanning may be utilized to rule out the presence of a neoplasm and adenopathy and to define the extent of coexisting pulmonary disease, which may need resection\(^{[5,7,11]}\).

Braimbridge and Keith\(^8\) classified congenital bronchoesophageal fistulas into four types. In type I, a fistula is associated with an esophageal diverticulum. Type II consists of a short tract running directly from the esophagus to the bronchus. The type III fistula communicates between the esophagus and a cyst in the lung lobe, and type IV involves a fistula between the esophagus and a sequestered pulmonary segment. Type II is the most prevalent and comprises almost 90\% of all cases in some series\(^7\). Our patient had a simple type II fistula.

The insidious nature of such a fistula may become life threatening, with repeated infection leading to pneumonia, bronchiectasis and abscess formation\(^{[8,9,12]}\). Despite the benign nature of this anomaly, if left untreated, it may lead to fatal complications.

For most cases of fistula formation, surgical management via thoracotomy is the traditional treatment\(^{[2,4-7]}\). The fistula is exposed and divided, and both the defects in the bronchus and the esophagus are repaired with interposition of viable tissue (e.g., pleural or muscular flap) between the suture lines\(^{[4,7,10,12]}\). Pulmonary resection is often needed in patients with coexistent pulmonary disease. The prognosis after surgical repair is excellent. Obliteration of the esophageal orifice with silver nitrate or biological glue is reserved for the patient who cannot tolerate thoracotomy.

Congenital BEF is a rare anomaly in adults. Barium swallow was the most useful diagnostic test. Once a bronchoesophageal fistula is recognized, surgery is the treatment of choice.

**REFERENCES**


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