normal pancreatic tissue as seen in our case. The appearance and enhancement pattern of HP on CT scans have been reported to be unreliable in differentiating the condition from gastrointestinal stromal tumor or carcinoid tumor. Visualization of the duct with MRCP was diagnostic of HP, obviating histologic confirmation in cases previously described.[6] In our case duct was poorely visualised due to non dilatation and absence of any pathology affecting it.

The combination of endoscopic ultrasonography with fine-needle aspiration cytology has been used for evaluation of submucosal gastrointestinal lesions. Preoperative biopsy may not help in the diagnosis of HP, and except for a few cases, definitive diagnosis of HP was not established preoperatively even in the symptomatic patients. Both conservative treatment and follow-up or removal of HP to prevent future complications is the recommended treatment options. Resection of the ectopic rest is advisable when the condition is encountered coincidentally during the operation.

In conclusion, HP in mesentery is extremely rare and imaging diagnosis of this condition is hardly described previously especially in asymptomatic patients. Signs and symptoms of the disease may cause confusion in the clinical diagnosis, if the pathologic conditions develop in the heterotopic tissue. However, the characteristic imaging features of HP may help in establishing the diagnosis.

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Congenital esophagobronchial fistula in an adult

Introduction

Persistence of congenital esophagobronchial fistulae into adulthood is rare.[1] They usually present in infants and may occur with or without esophageal atresia.[2]

Case report

A 20 yr old female presented with history of recurrent respiratory infection from the age of 13 years. At presentation, she had history of prolonged cough soon after food intake which was more with liquid food for the last 3 years. There was no past history of any surgery, trauma, tuberculosis or any other major illness. On examination, she was moderately built and poorly nourished. Respiratory system examination revealed coarse crepitations in the right lower lobe areas. Routine blood investigations were normal. Esophagogastroduodenoscopy showed a opening in the esophagus 30 cm from the incisor tooth (**Figure 1a**). Barium swallow showed spill over of barium from the esophagus into the right lower bronchus (**Figure 1b**). CT scan showed communication between esophagus and right lower bronchus and destruction of the right lower lobe with bronchiectatic changes. Bronchoscopy showed right posterior basal segmental orifice located more anteriorly with plenty of secretions. During surgery a fistulous communication between the esophagus and the bronchus (**Figure 2a**) noted. Fistula along with the right lower lobe was resected. Resected specimen (**Figure 2b**) was sent for histopathological analysis. The

esophageal squamous epithelium was seen to merge with the pseudostratified ciliated columnar epithelium of the respiratory tract (**Figure 2c**). Patient had an uneventful recovery during the post operative period and is currently under follow up. She has not developed further respiratory infection and is asymptomatic now.

Discussion

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.[3,4] The congenital nature of the fistula is suggested by the absence of adherent lymph nodes, past or present surrounding inflammation, by the presence of a mucosa and definitive muscularis mucosa within the fistulous tract.[5] Braimbridge and Keith[6] classified congenital bronchoesophageal fistulas into four types:

- Type I - fistula is associated with an esophageal diverticulum.

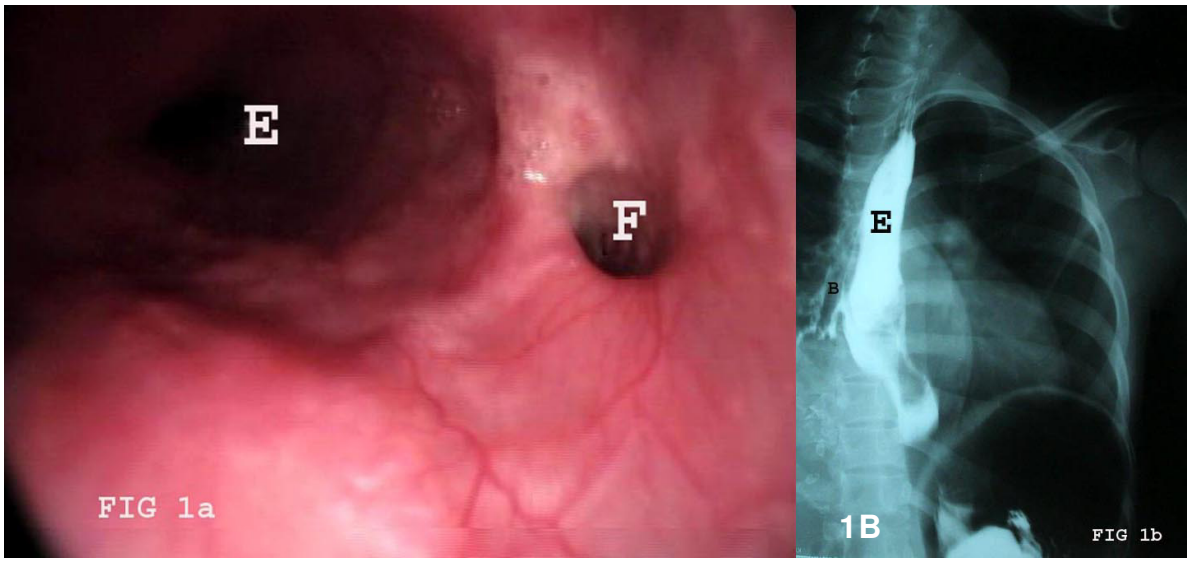

Figure 1: (a) Esophagoscopy showing fistulous opening (E-Esophagus F –fistula); (b) Barium swallow showing fistulous communication of esophagus with right lower lobe bronchus (E-esophagus, F –fistula)

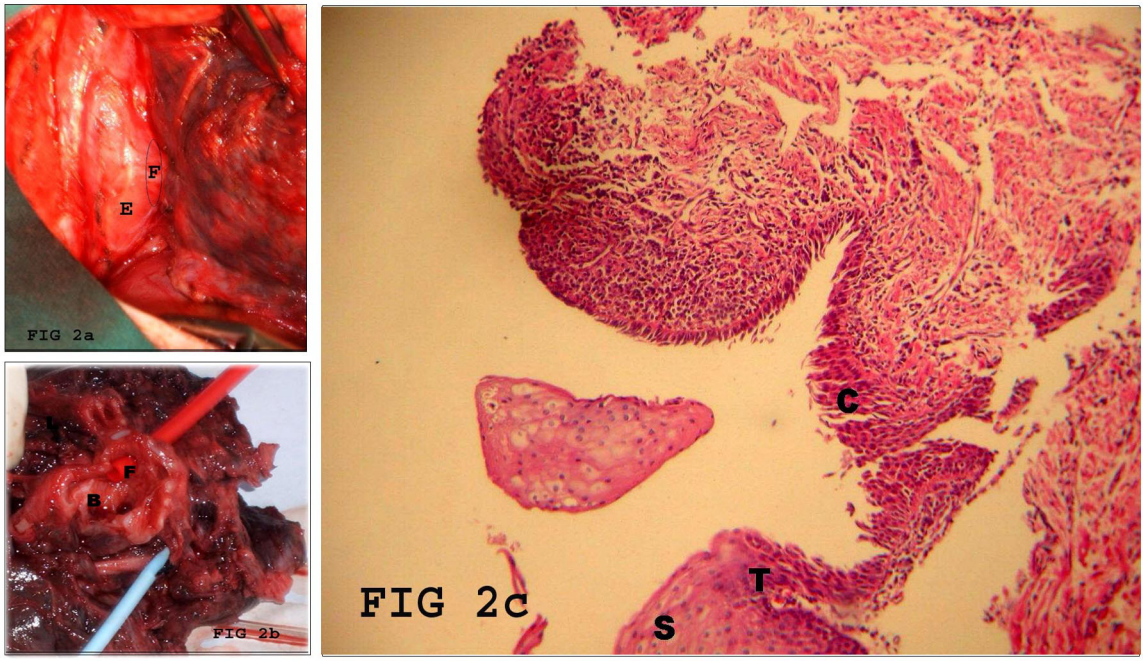

Figure 2: (a) Surgery showing the fistulous communication E-esophagus F-fistula (2) Resected specimen showing the fistulous tract and the right lower lobe-(B-bronchus L-Lungs F-fistula) (c) Histopathology of the resected specimen showing the transition of esophageal squamous epithelium to pseudostratified ciliated columnar epithelium of the respiratory epithelium (S-squamous epithelium, C-ciliated columnar epithelium, T-transition zone)

- Type II - short tract running directly from the esophagus to the bronchus.
- Type III - fistula communicates between the esophagus and a cyst in the lung lobe
- Type IV - 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. Our patient had a simple type a! fistula.

The insidious nature of fistula may become life threatening, with repeated infections leading to pneumonia, bronchiectasis and abscess formation.[7] 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. 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. 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.[8]

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Invasive pulmonary aspergillosis in a young man with Crohn's disease

Introduction

Invasive aspergillosis is a devastating disease, associated with high morbidity and mortality.Primary infection usually involves the respiratory tract following environmental exposure to aspergillus and in severely immunocompromised patients, it disseminates to other organs.[1]

Case report

A 24 year old male smoker diagnosed with ileocecal Crohn's disease in July 2010, initially required intravenous corticosteroids to achieve remission. But in August 2010, the patient was admitted with right iliac pain which was nonresponsive to oral corticosteroids. He was subsequently treated with intravenous methylprednisolone - 1 mg/kg/day and azathioprine - 2.5 mg/kg/day. Levels of thiopurine methyltransferase were normal. The patient improved and was discharged on oral mesalazine 3 g once daily, azathioprine and gradual tapering of corticosteroids. Two months later, he was readmitted with another outbreak of activity that required intravenous corticosteroids, however, on day 10, he developed marked neutropenia. He complained of cough with purulent sputum, wheeze and dysnea but there was no chest pain or haemoptysis. On examination, he was found to have low grade fever with scattered coarse crepitations. Chest X-ray revealed alveolar opacities (right more than left) without any large pleural effusion, discrete mass, or nodules (**Figure 1**). Computed tomographic (CT) scan showed massive pulmonary thromboembolism as well as bilateral diffuse pulmonary infiltrates, predominantly on the right side (**Figure 2**). Bronchoscopy showed white covering histologically corresponding to invasive aspergillosis, with detection of aspergillus specific antigen (galactomannan) in bronchoalveolar lavage and respiratory secretions. After