

Esophageal Cancer Complicated by an Oesobronchial Fistula Revealed by a Pulmonary Abscess: About One Case

Nahid Zaghba², Boussehra Assia^{1*}, Khadija Chaanoun², Hanane Benjelloun², Najiba Yassine³

¹Résidente en Pneumologie, Department of Respiratory Diseases, CHU Ibn Rochd, Casablanca, Morocco

²Professeur en Pneumologie, Department of Respiratory Diseases, CHU Ibn Rochd, Casablanca, Morocco

³Professeur D'enseignement Supérieur de Pneumologie et Chef de Service, Department of Respiratory Diseases, CHU Ibn Rochd, Casablanca, Morocco

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*Corresponding author: Boussehra Assia

Résidente en Pneumologie, Department of Respiratory Diseases, CHU Ibn Rochd, Casablanca, Morocco

Abstract

Case Report

Introduction: Esophageal fistula is a rare and serious complication of esophageal cancer. **Observation:** We report the case of a 33-year-old female patient. The reason for consultation was epigastralgia, post prandial vomiting, purulent bronchial syndrome and fluid dysphagia. Clinical examination revealed a right basal fluid effusion syndrome and limited mouth opening. Thoracic imaging showed a right pulmonary abscess complicating a bronchoesophageal fistula. The digestive fibroscopy showed a necrotizing circumferential budding tumor of the lower third of the esophagus with an orifice on the right side of the esophagus communicating the esophagus and the right basal pyramid. The patient benefited from a feeding gastrostomy. The evolution was marked by the death of the patient three months after her treatment by a cardiorespiratory arrest. **Conclusion:** Esophageal fistula is a complication of the pre-terminal stage of esophageal cancer. The diagnosis is made by endoscopy and imaging. The treatment remains palliative at this stage.

Keywords: Esophageal fistula, pulmonary abscess, esophageal cancer, feeding gastrostomy.

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INTRODUCTION

Esobronchial fistula is defined as an abnormal communication between the esophagus and the bronchi [1]. It is discovered after a long history of repeated respiratory infections [2]. It can complicate esophageal cancer. At this stage, the treatment is usually palliative [1]. We report the case of an oesobronchial fistula revealed by a pulmonary abscess.

OBSERVATION

The patient was 33 years old and had no toxic habits. At the age of 10, she suffered a facial trauma that resulted in a fracture of the left mandible with limited opening of the mouth. She had consulted the respiratory diseases department for a progressive symptomatology evolving for 3 months, made of

intermittent epigastralgia and early postprandial vomiting. The clinical picture worsened 20 days later with the appearance of a purulent bronchial syndrome, dyspnea at the slightest effort, dysphagia to liquids and fever sensation, night sweats and alteration of the general state. The general examination revealed a patient in poor general condition with a PS (statural performance) of 3 and a state of leanness with a body mass index of 11 kg/m². The thorax examination showed a right basal fluid effusion syndrome. The maxillofacial examination showed a limitation of the opening of the mouth à 0.

The frontal chest radiograph (Figure 1) showed a right basal hydro-aerosic image.



Figure 1: Frontal thoracic radiograph showing a right basal hydro- basal image on the right

Dysphagia associated with respiratory symptoms had suspected an oesobronchial fistula. Chest CT scan with gastrografin ingestion (figure 2) showed a right basal lung abscess with communication with the esophagus. A flexible bronchoscopy (figure 3) showed an inflammatory state in the right bronchi, predominantly in the basal pyramid, with purulent

secretions and the presence of a fistula in the right postero-basal orifice. A gastrointestinal fibroscopy (figure 4) showed a necrotizing circumferential budding tumor of the lower third of the esophagus, with the presence of an orifice on the right side of the esophagus communicating the esophagus and the right basal pyramid.



Figure 2 A

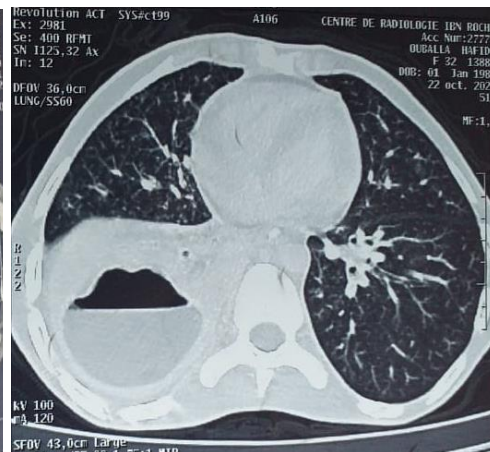


Figure 2 B



Figure 2 C

Figure 2: A: Thoracic scan showing a right basal hydro-aeric image, well limited with a regular level, measuring 112 × 65 × 53 mm

B: Thoracic scan after ingestion of gastrografine showing opacification of the opacification of the fluid component of the right basal water cavity right

C: thoracic radiography after gastrografine ingestion showing Passage of the contrast medium to the right basal water image

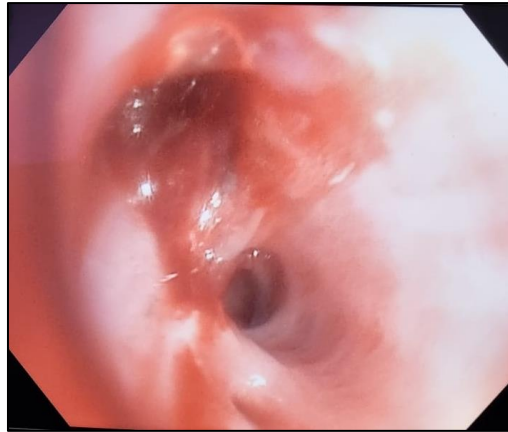


Figure 3: Flexible bronchoscopy showing a fistula at the posterobasal orifice of the right basal pyramid

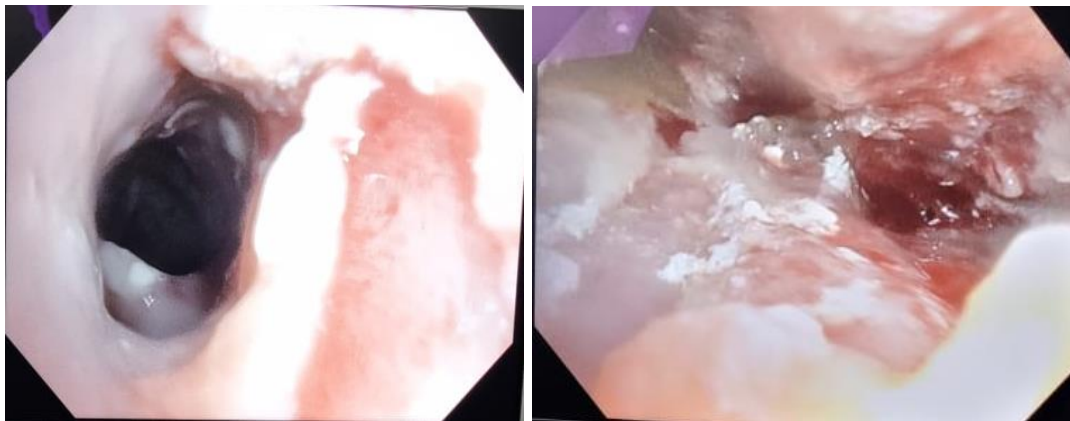


Figure 4 A

Figure 4 B

Figure 4: A: Oesogastroduodenal fibroscopy showing a necrotizing circumferential budding tumor circumferential necrotizing tumor of the lower third of the esophagus

B: Fistula on the right side of the esophagus communicating the esophagus and the right basal pyramid

Biopsies were in favor of a moderately differentiated and invasive squamous cell carcinoma of the esophagus.

The patient had benefited from a feeding gastrostomy, a bi-antibiotic therapy (Amoxicillin-clavulanic acid 3g/d + Ciprofloxacin 1g/d) with the correction of hydroelectrolytic disorders.

The evolution was good with a clinical, biological and radiological improvement (figure 5). A facial CT scan showed a deformation of the left mandibular condyle associated with a significant pinching of the articular surfaces between the temporal and the condyle, fused in places. Unfortunately, three months later, the patient died in a cardiorespiratory arrest cardiorespiratory arrest.



Figure 5: Frontal thoracic radiograph showing regression of the right basal hydro-aerosic image basal image after one and a half months of treatment

DISCUSSION

Oesobronchial fistula is a serious and rare complication that is life threatening [1, 3]. Indeed, malnutrition and frequent inhalation of fluids and food lead to severe pulmonary infections and rapid deterioration of the general condition.

Most patients die within six weeks of the onset of fistula if no treatment is instituted [1, 4].

The main clinical manifestations are paroxysmal coughing with feeding and fluid intake, which is the main symptom, recurrent lung infections, hemoptysis, recurrent lung abscesses, dysphagia and respiratory distress [5].

The etiologies are dominated by neoplastic pathologies (esophageal cancer, bronchial cancer) which account for approximately 50% of all acquired esobronchial fistulas [6].

Benign causes are much rarer, they can be of infectious origin (esophageal tuberculosis, esophageal candidiasis), inflammatory (vasculitis, crohn's disease), toxic (caustic ingestion), neoplastic (post radiotherapy or chemotherapy in bronchial or esophageal cancer), iatrogenic (post-operative: esophagectomy, pneumonectomy, spinal surgery) [7]. In our patient the fistula was of neoplastic origin.

Esophageal and tracheobronchial fibroscopy is the most effective diagnostic method [8], allowing the diagnosis and lesion assessment to be made, the location of the fistula to be specified and the state of the surrounding tissues to be determined, and in particular the presence of fibrosis of the mucosa [8, 9].

CT and MRI with gastrografen ingestion can also visualize the fistula and analyze the perifistular tissue atmosphere [10].

The aim of palliative treatment is to permanently interrupt the communication between the esophagus and the respiratory tree. It is underpinned by three imperatives: to avoid any possibility of passage from the digestive tract to the air tree; to fight against bronchopulmonary superinfection and local perifistular infection; to ensure clinical and biological stabilization [1, 3].

Radical treatment of esophageal cancer complicated by an esobronchial fistula is a real challenge. Only a few patients will be eligible for such a major surgery [3]. However, the majority of authors have shown that in the presence of a fistula, it is practically impossible to perform such a major surgery [11]. The treatment options are very limited once the diagnosis of fistula is made. Palliative treatment then becomes the mainstay. Esophageal bypass is a treatment

of choice in selected patients, but the risk of postoperative mortality is high.

It is a technique that allows a bypass between the abdomen and the cervical region of the esophagus using the stomach or the colon to allow oral feeding [12]. Currently, there is no indication for palliative surgery with the advent of stenting [13] which is the reference treatment. This is an endoscopic method aiming at restoring the permeability of the esophagus by the placement of a prosthesis in order to allow swallowing, improve nutritional status and the disappearance of symptoms in about 80 to 90% of cases [14, 15]. The rate of complications (obstruction, migration, local necrosis, hemorrhage) secondary to the placement of these prostheses is 15 to 40% [16]. The use of gastrostomy or feeding jejunostomy could be a good alternative. The placement of a jejunostomy tube is preferable to gastrostomy because of the risk of gastroesophageal reflux [17].

Our patient had benefited from a gastrostomy. On the other hand, these methods do not bring any gain on the survival of the patients [18].

CONCLUSION

Oesobronchial fistula is a late complication of esophageal cancer. It is rarely revealed by a pulmonary abscess. The diagnosis is made by endoscopy and thoracic CT. The treatment remains palliative. It must resolve the problem of pulmonary contamination and malnutrition.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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