

Lower Left Lobectomy for Bronchial Dilation Revealing a Food Foreign Body (Sunflower Seed) about of an Observation

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Abstract: Inhalation of a food foreign body is a rare phenomenon in adults, it can be serious and life-threatening. We report the observation of a 37-year-old patient with chronic bronchitis for 10 years, without notion of ingestion of an obvious digestive foreign body but who presents a progressive worsening of her bronchorrhea becoming purulent associated with a single episode of hemoptysis of low abundance. Chest radiography revealed an alveolar type opacity with left paracardiac projection. The chest CT scan showed dilatation of the bronchi downstream of a lesion at the left lower lobar level. The flexible bronchoscopy showed a foreign body which is a sunflower seed obstructing the orifice of the left lower lobar bronchus with notion of regular consumption of Sunflower seeds for 20 years later found during interrogation. The extraction of the foreign body was carried out surgically or a lower lobectomy was carried out in connection with the failure of the endoscopic extraction and the patient benefited from antibiotic therapy and respiratory physiotherapy, as well as awareness raising in order to avoid subsequent penetration syndrome. The development was very favorable. Intrabronchial foreign bodies after failure of their extraction by bronchial endoscopy.

Keywords: Food Foreign Body, Sunflower Seed, Dilation of the Bronchi, Left Lower Lobectomy.

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INTRODUCTION

Inhalation of foreign bodies is relatively common in children, rarer in adults. The nature of the foreign body is very diverse, especially in adults, and depends greatly on eating habits.

Inhalation of a food foreign body can be accidental or result from damage to the aerodigestive crossroads, it can go unnoticed as it can manifest itself by noisy symptoms [1]. We report the observation of a patient with dilation of the left lower lobar bronchus following inhalation of a sunflower seed (Fig 1). the retention of this foreign body had led to the appearance of bronchiectasis. Faced with the impossibility of endoscopic extraction with localized, symptomatic and disabling lung lesions, a lobectomy was performed. Surgical indications in this context remain exceptional and are still poorly detailed in the literature.

MATERIALS AND METHODS

Patient Information:

Mrs. AK aged 37, chronic bronchitic for 10 years, with no history of ingestion of a foreign body, she had for 2 years a progressive worsening of her bronchorrhea becoming purulent associated with a single episode of mild hemoptysis. Abundance in a context of feverish sensations and preservation of general condition. Clinical examination revealed rumbling sounds in the lower 1/3 of the left hemithorax.

Diagnostic Approach:

Chest x-ray revealed an alveolar type opacity with paracardiac projection gache with finely rimmed lucencies in the left basithoracic. Chest computed tomography (CT) showed dilatation of the left basal bronchi (Fig 2 -3). The biological assessment did not reveal any infectious syndrome. The cytobacteriological examination of sputum as well as the search for Koch's

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bacillus (BK) on direct examination were negative. On the other hand, flexible bronchoscopy showed a typical foreign body with the appearance of a blackish sunflower seed obstructing the orifice of the left mid-basal bronchus with the presence of a fragile inflammatory mucosa bleeding at the slightest contact associated with purulent secretions with failure of extraction.

The extraction of the foreign body which is a Sunflower seed was carried out by a surgical route (Fig 4) associated with a lower left lobectomy in connection with DDB lesions extended over the entire lobe by obstruction of the lower left lobar bronchus. Its origin (Fig 5-6). Our patient was put on antibiotics with respiratory drainage physiotherapy, as well as

sensitization in order to avoid a subsequent penetration syndrome.

Follow-Up and Results:

The clinical evolution was good with a regression of the bronchorrhea and good radiological control on post-operative day 3 (Fig 9). Bronchial aspirations were negative. When resuming the questioning, our patient mentioned no memory of ingestion of a foreign body but regular consumption of Sunflower grains for several years.

Examination of the surgical specimens confirmed the destruction of the left lower lobe and the existence of a sunflower seed (Fig 7-8).



Fig. 1: Sunflower seeds



Fig. 2: CT scanner Atelectasis of the left lower lobe



Fig. 3: CT scanner Atelectasis of the left lower lobe



Fig. 4: Left thoracotomy (K. Meskouri collection)



Fig. 5: Endobronchial foreign body after intraoperative bronchotomy (K. Meskouri collection)



Fig. 6: Lower lobe with an intrabronchial foreign body (K. Meskouri collection)



Fig. 7: Operating part: Lower lobe + foreign body (K. Meskouri collection)

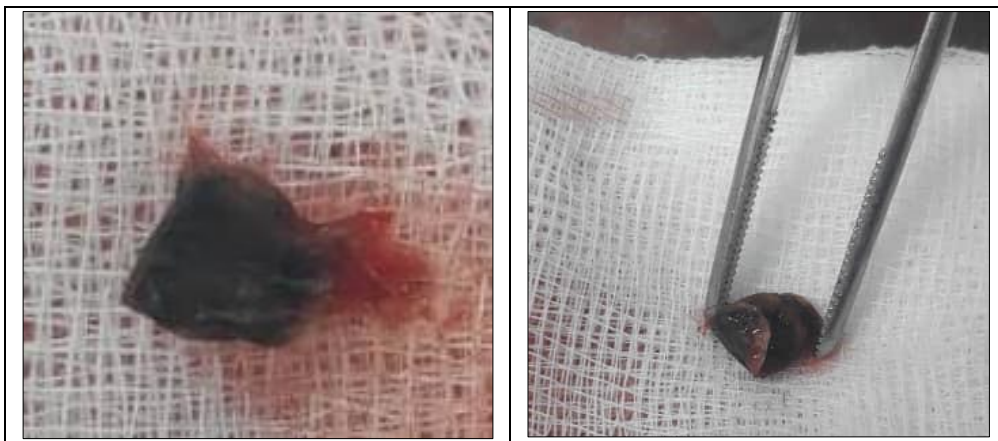


Fig. 8: Foreign body: Grain of Tourne sole (K. Meskouri collection)

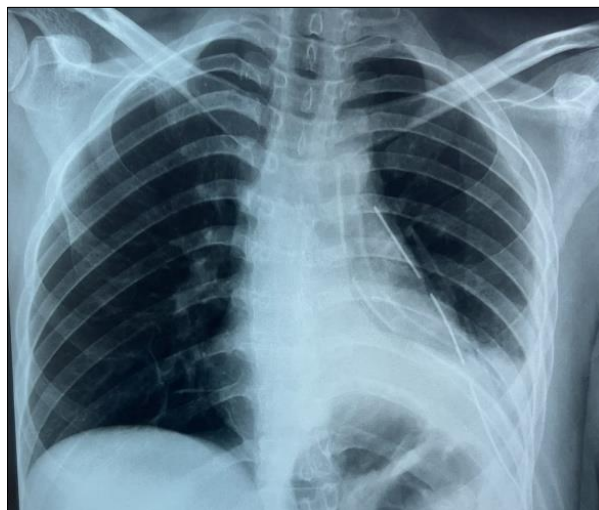


Fig. 9: Control telethorax on post-operative day 3. (K. Meskouri collection)

DISCUSSION

Intrabronchial foreign bodies are rare in adults, often unrecognized and difficult to diagnose, leading to confusion with a specific tumor or infectious pathology [6]. Their nature depends a lot on the regions and eating habits.

Inhalation of a foreign food body is accidental, it can be serious and life-threatening. It is more common in children and rare in adults. The diagnosis is often difficult, posing a problem of differential diagnosis [2]. The peak frequency is in children between 1 and 3 years old and in adults over 50 years old through aspiration, the

predominance is male in 2/3 of cases, in adults food foreign bodies made from pieces of meat, fish bones, vegetables or fruit. They are mainly located at the level of the right bronchial axis due to the straightness of the right main bronchus. In Caidi 's series *et al.*, [2], the foreign body was located, in more than half of the cases, at the level of the right main bronchus and preferentially at the level of the intermediate trunk, unlike our patient where the foreign body was located on the left. The contributing factors are sudden emotions during meals, reduced alertness in the event of drunkenness, consumption of drugs or sedatives, poor teeth, reduced cough reflex in the event of mental retardation or of Parkinson's disease. There is therefore a conjunction of 2 factors: a foreign body, a favorable event [3].

The clinical presentation is often acute with a picture of respiratory distress, stridor, asthmatic dyspnea, wheezing; or it can be done remotely at the stage of complications: recurrent pneumonia, pleuro-pneumopathy, hemoptysis, localized bronchial dilatation (DDB) like the case of our patient [4]. Chest radiography can highlight the radiopaque foreign body as it can be non-specific, images of obstructive emphysema, atelectasis, localized bronchial dilatation, pneumonia and exceptionally pneumothorax or pneumomediastinum can be seen [5]. Chest CT is more precise, it highlights the foreign body as well as its location. Bronchial endoscopy must be carried out urgently, for diagnostic and therapeutic purposes. The endoscopic appearance is quite characteristic and must be known to endoscopists. Surgery is rarely indicated and concerns cases of endoscopy failure, as well as unknown foreign bodies with irreversible bronchopulmonary destruction [4]. Prevention is based on respecting certain measures such as eating meals in a seated position and avoiding talking, cutting food, slicing it or mixing it depending on chewing problems, dental care with good adaptation of prostheses unfortunately diagnoses are generally late, at the stage of infectious complications.

CONCLUSION

Surgery for intrabronchial foreign bodies should only be a therapeutic alternative after bronchial endoscopy has failed. Preventive measures, especially in children, remain the best treatment.

Inhalation of a foreign body can be serious and life-threatening. Treatment is based on its rapid extraction by bronchoscopy in order to avoid complications. We emphasize the importance of prevention which is based on patient education in order to avoid other inhalation accidents.

Conflict of Interest: The authors declare no conflict of interest.

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