

Case Report

An interesting cause of atelectasis: Pill aspiration presenting like a bronchial tumour

Toru Ümran

Abstract

Dumlupınar University, Faculty of
Medicine, Department of Chest
Diseases, Kütahya, Turkey

Email:

umran_toru_81@hotmail.com

Foreign body aspiration is uncommon in adults and aspirated foreign bodies can mimic bronchial tumours in rare cases. This is a report of a 78-years old female patient presented with pill aspiration, which was mimicking a bronchial tumour in fiberoptic bronchoscopy.

Keywords: Atelectasis, Foreign body, Aspiration, Bronchial tumour

INTRODUCTION

Aspiration of tracheobronchial foreign bodies (FBs) commonly affects young children and it is uncommon in adults (Falase et al., 2013; Yılmaz et al., 2004). Bronchoscopy, both flexible and rigid, is recommended to reveal the etiology and to provide the removal of FBs in cases with prediagnosis of foreign body aspiration (FBA) (Wang et al., 2010; Swanson, 2004). Here we reported a case of pill aspiration presented like an endobronchial mass lesion and causing left lung atelectasis.

Case Report

78-years old female patient was admitted to our emergency room with chronic complaints of dyspnea and cough. In physical examination decreased breath sounds and dullness was detected in the left lung. Radiologic findings consistent with left lung atelectasis were observed in Postero-anterior (PA) Graphy and Computed Tomography (CT) of Thorax (Figure 1a and 1b). Fiber Optic Bronchoscopy (FOB) was performed in order to elucidate the etiology of atelectasis and white-coloured, bright surfaced endobronchial lesion was detected at the entry of the left main bronchus (Figure 2). The lesion was decomposited and the airway was opened when forceps was pushed forward during biopsy. Resolution of the atelectasis was seen in control PA graphy and Thorax CT (Figure 3a and 3b). Patients detailed anamnesis revealed that she had aspirated her pill a few months ago.



Figure 1a. Left lung atelectasis in PA Graphy.

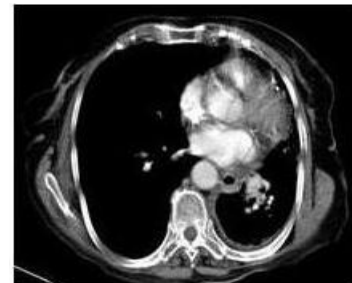


Figure 1b. Thorax CT showing left lung atelectasis.

DISCUSSION

Aspiration of FB is usually combined with acute clinical symptoms requiring immediate medical intervention

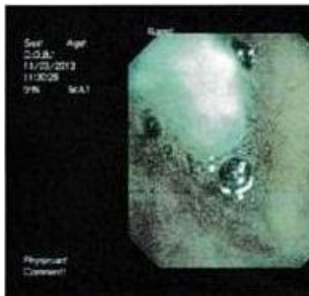


Figure 2. Bronchoscopic view of the aspirated FB at the entry of the left main bronchus.



Figure 3a. Resolution of the atelectasis in control PA graphy.



Figure 3b. Control Thorax CT image after bronchoscopic removal of the FB.

however in approximately one third of patients, symptoms of aspiration are less prominent (Szafranski et al., 2013). The symptoms and signs produced depend upon the size, nature, location and time since lodgment of the FB in the tracheobronchial tree (Onotai and Ebong, 2011). For instance, a large foreign body including the upper air way may lead to acute symptoms whereas a small foreign body lodged in the tracheobronchial tree may cause less severe clinical symptoms (Onotai et al., 2012; Lima, 1989). A high incidence of FB-related symptoms or complications occurs as a result of the long delay between aspiration and diagnosis and the delayed

residual symptoms may be minimal (Wang et al., 2010; Dong et al., 2012; Orji and Akpeh, 2011). In our patient, acute symptoms were not observed initially and there was only chronic cough and dyspnea symptoms in the delayed presentation of the patient. Because aspirated foreign body was lodged in the left main bronchus and the diagnosis was made following a few months after aspiration.

Atelectasis is the most frequent radiological finding due to FBA and bronchoscopy should be performed to reveal the etiology in cases with prediagnosis of atelectasis (Wang et al., 2010; Swanson, 2004). It is re-

ported that in rare cases FBAs can mimic bronchial tumours (Szafranski et al., 2013). However in the presence of a high clinical suspicion even with normal imaging studies bronchoscopy is recommended for a thorough evaluation of the airways (Swanson, 2004).

The early removal of FB causing atelectasis is suggested because of high success rates (Wang et al., 2010; Cataneo et al., 1997). Bronchoscopic extraction of airway FBs can be safely accomplished with both the flexible as well as the rigid bronchoscope in adults and children (Swanson, 2004). In our case, left lung atelectasis was detected radiologically and FOB was performed to reveal the etiology. Aspirated pill, which was mimicking a bronchial tumour, was observed in FOB and it was removed successfully.

CONCLUSION

FBAs are the major causes of atelectasis and a detailed medical history is the key in such patients. In cases with a prediagnosis of atelectasis due to FBA, FOB is recommended for the removal of aspirated FBs.

REFERENCES

- Cataneo AJ, Reibschied SM, RuizJúnior RL, Ferrari GF (1997). Foreign body in the tracheobronchial tree. *Clin Pediatr (Phila)*. 36(12):701-6.
- Dong YC, Zhou GW, Bai C, Huang HD, Sun QY, Huang Y, Han YP, Li Q (2012). Removal of tracheobronchial foreign bodies in adults using a flexible bronchoscope: Experience with 200 cases in China. *Intern. Med.* 51(18):2515-9.
- Falase B, Sanusi M, Majekodunmi A, Ajose I, Oke D (2013). Preliminary experience in the management of tracheobronchial foreign bodies in Lagos, Nigeria. *Pan Afr Med J.*;15:31. doi: 10.11604/pamj.2013.15.31.2710.
- Lima JA (1989). Laryngeal foreign bodies in children: A persistent life threatening problem. *The Laryngoscope*. 99(4):415–20.
- Onotai LO, Ebong ME (2011). The pattern of foreign body impactions in the tracheobronchial tree in the University of Port Harcourt Teaching Hospital. *Port Harcourt Med J*. 5(2):130–5.
- Onotai LO, Ibekwe MU, George IO (2012). Impacted foreign bodies in the larynx of Nigerian children. *J. Med. Med. Sci.* 3(4):217–21.
- Orji FT, Akpeh JO (2011). Tracheobronchial foreign body aspiration in children: How reliable are clinical and radiological signs in the diagnosis? *ClinOtolaryngol*. 35(6):479–85.
- Swanson KL (2004). Airway foreign bodies: what's new? *SeminRespirCrit Care Med*. 25(4):405-11. doi: 10.1055/s-2004-832713.
- Szafranski W, Dobielski J, Papiewski W, Czechowska U (2013). Occult bronchial foreignbodies - analysis of own material. *PneumonolAlergolPol*. 81(1):40-4.
- Wang K, Harnden A, Thomson A (2010). Easily missed? Foreign Body inhalation in children. *Clinical Otolaryngology*.;35(6):494–5.
- Yilmaz A, Akkaya E, Damadoglu E, Gungor S (2004). Occult bronchial foreign body aspiration in adults: analysis of four cases. *Respirology*. 9(4):561-3. doi: 10.1111/j.1440-1843.2004.00621.x.