

## A foreign body mimicking tracheal stenosis

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Tracheobronchial foreign body aspiration (FBA) is a life-threatening emergency that requires prompt removal, but sometimes it may remain undetected because of atypical history or misleading clinical and radiologic findings [1, 2]. Foreign body aspiration can be seen in all ages, but it is most common in children younger than 3 years of age [3]. As a result of symptoms absence, their presentation to the physician may be due to late phase complications [4].

Foreign body aspiration may cause coughing, dyspnea, wheezing in the early period and atelectasis, empyema, bronchiectasis and bronchial asthma-like symptoms in the chronic period [5]. In this study, a case in which bronchial asthma treatment lasted a long time but foreign body aspiration was detected is presented with the literature.

A 10-year-old boy, who had stridor, dsypnea, wheezing and cough, received treatment for diagnosis of bronchial asthma for nearly 2 years. The patient without symptom improvement was presented to our outpatient clinic. Upon physical examination he had stridor and sounds were heard equally in both lungs. There was no pathological findings with chest X-ray. Complete blood count and biochemical parameters showed no pathology. There was shrinkage of the lumen, which was observed approximately 2 cm under the vocal cords with neck and thorax computed tomography (Figs. 1 A, B). We performed rigid bronchoscopy (RB)

with prediagnosis of tracheal stenosis and FBA. A granuloma encapsulated foreign body 2 cm inferior to the vocal cords, almost blocking the lumen, was detected and removed with the help of RB. The foreign body which was removed from the trachea was an approximately 15 mm plastic seal (Figs. 2 A, B). After the RB, his symptoms decreased. He was discharged on the first postoperative day.

Foreign body aspiration is frequent at 1–3 years of age, but can be observed in all age groups [3, 5]. History taking is the most important step of the diagnosis [5]. Performing radiological examinations is recommended in all patients suspected of FBA. If the foreign body was radiopaque, it should be visible on the chest X-ray. The most common radiographic findings are unilateral hyperaeration, mediastinal shift, atelectasis and pneumonic infiltration. Despite the normal physical examinations and radiographic findings, bronchoscopy is suggested if the clinical suspicion continues [4, 5].

Sometimes FBA may remain undetected due to atypical history or misleading clinical and radiological findings. Inflammation and granulation tissue develop around the FBA in delayed cases, and thus it is not uncommon for patients to be treated for other disorders such as persistent fever, asthma or recurrent pneumonia for a long period of time [6, 7]. Patients with persistent asthma-like symptoms such

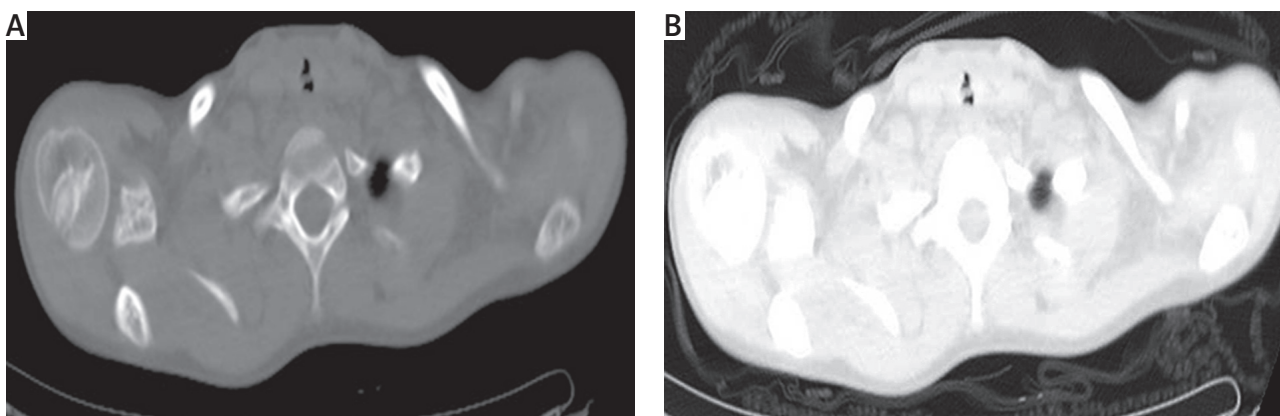


Fig. 1 A, B. Thorax computed tomography

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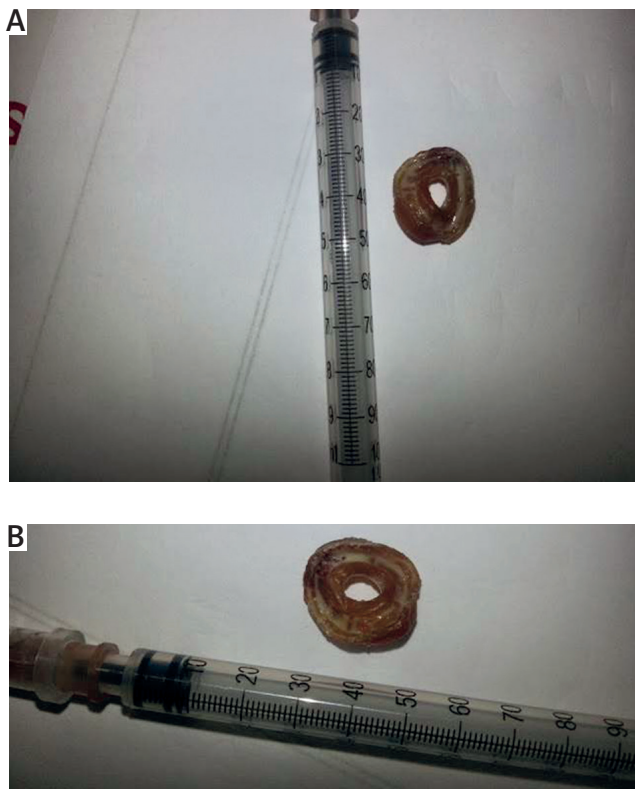


Fig. 2 A, B. Foreign body

as cough and wheezing required treatment with inhaled corticosteroids and bronchodilators [8]. Our patient had wheezing and stridor for nearly 2 years and he was receiving bronchial asthma treatment.

At the present time, observation with rigid bronchoscopy to the tracheobronchial tree remains important [5]. Rigid bronchoscopy is still the most effective method in diagnosis and treatment of FBA [9]. Fiberoptic bronchoscopy (FOB) is not an accepted method for removal of the foreign body [10]. Although FOB has good manipulation and vision, FOB's success rate is 60%, while that of RB is 98% [11]. Nuts are the most commonly aspirated foreign body in the Western world, while seed aspiration is more commonly

reported in the Middle East [12]. We removed the plastic seal with RB in our case.

Atypical or prolonged respiratory symptoms should alert the physician and clinical and radiological findings should be carefully evaluated for possible FBA. Patients with respiratory symptoms, chronic cough and wheezing refractory to medical treatment should be assessed in detail with foreign body aspiration in mind.

### Disclosure

Authors report no conflict of interest.

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