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Letter to the Editor

Foreign-body aspiration mimicking asthma in pre-school age group: A case report

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Dear Editor,

Foreign-body aspiration (FBA) is a situation that can be fatal in children and it is very common especially in children younger than three years of age (1). The fact that children between the ages of one and three have an urge to get to know every object with their mouth and the fact that the coordination in their muscles involved in swallowing is not fully developed increases the frequency of aspiration (2). It has a significant rate of mortality (7%) and in addition to death, it can cause serious complications such as serious airway injuries, atelectasis, pneumonia and bronchiectasis. The diagnosis can be left out since there is not a history all the time. Especially in children younger than 5 years of age, it can mimic asthma symptoms. For this reason, in children younger than 5 whose clinical symptoms do not recover despite bronchodilator and anti-inflammatory treatment, foreign-body aspiration should also be researched (1,3). In this case report, foreign-body aspiration in a case followed with a diagnosis of asthma whose wheezing attacks were continuing despite treatment and who did not have a complete state of well-being was discussed.

Two-year-old male patient referred to our outpatient with a complaint of cough and wheezing. His anamnesis showed that he had received asthma treatment in a large number of clinics for recurrent wheezing complaints that started since the age of six months old. It was learned that inhaler treatments given to the patient caused decreases in symptoms; however, symptoms never recovered completely.The patient's history and family history did not show any characteristics. His physical examination showed that the general condition was moderate and auscultation showed elongation of expiration on the right side. Other systemic findings were normal. Respiratory rate was 44/min, peak heart rate was 112/min and oxygen saturation was 95%. Laboratory examination showed that white blood cell count was 7.970/mm3, hemoglobin (Hgb) was 13.3 g/dl, thrombocyte was 386.000/mm3, total neutrophil count was 2.540/mm3, total lymphocyte count was 4.580/mm3, eosinophil count was 190/mm3 and C-reactive protein was 0.3 mg/dl. Blood immunoglobulin values were normal for his age. Sweat test was negative and the skin prick test did not find any allergen sensitivity. Although chest X-ray did not show obvious ventilation difference, intrafiltrative opacity was seen in the paracardiac region of the right lung (Figure 1). Since the patient's asthma symptoms did not recover completely and there was unilateral rhonchus, foreign-body aspiration was considered and the patient was consulted to thoracic surgery. Flexible bronchoscopy showed a lesion compatible with foreign-body (peanut) which caused contraction at lumen of the right intermediary bronchus and the foreign-body was extracted during bronchoscopy (Figure 2). Inhaler treatments(inhaler corticosteroid and short acting Beta 2 agonist as needed), used by the patient were stopped and 6-month-long follow-up did not show wheezing attacks.

Asthma is one of the chronic diseases which are common in childhood. One of the differential diagnoses of this disease characterized by recurrent coughs, wheezing, dyspnea and chest tightness attacks is foreign-body aspiration. It should be considered especially in children younger than five years of age (1). Our patient was 2 years old and he was within the age interval that has a high risk for FBA. Clinical symptoms differ based on the size, type and localization of the foreign-body (4). In sudden onset of cough, wheezing, shortness of breath and symptoms

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that develop while eating or playing, FBA easily comes to mind. However, in prolonged symptoms or when it mimics asthma symptoms, the diagnosis can be delayed. For this reason, in children with asthma who do not respond well to treatment, detailed anamnesis should be taken in terms of FBA and advanced imaging should be performed when FBA is suspected. In one study, patients with FBA were evaluated retrospectively and only 25% of the patients were found to have a history of FBA (5). In our case, no foreign-body aspiration history was found in the family. In addition, FBA diagnosis was delayed since the patient's prolonged cough and recurrent wheezing symptoms brought asthma to mind.

As a conclusion, it should be questioned whether infants with recurrent wheezing have a state of complete well-being at times. If there is no state of complete well-being and the patient does not respond well to treatment, advanced imaging should be conducted and FBA should be excluded.

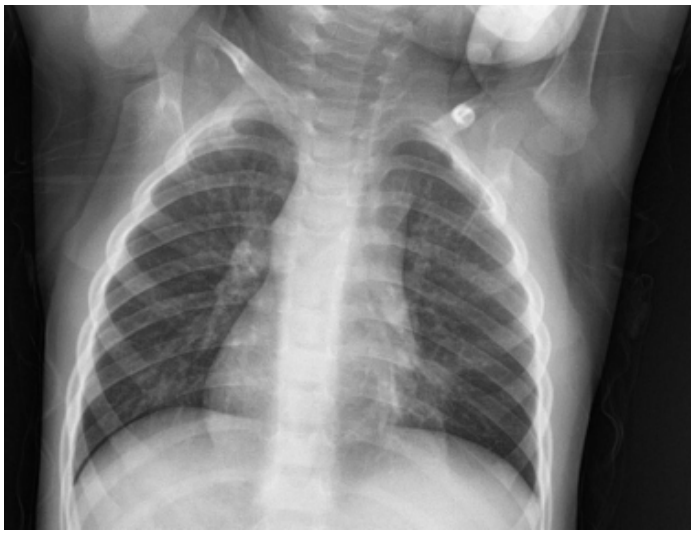

Figure 1. Chest X-ray

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REFERENCES

1. Global Initiative for Asthma (GINA). GINA Homepage. 2018. http://www.ginasthma.org access date 2018.
2. Naragund AI, Mudhol RS, Harugop AS, et al. Tracheo-bronchial foreign body aspiration in children: a one year descriptive study. Indian J Otolaryngol Head Neck Surg 2014;66:180-5.
3. Babayiğit A, Ölmez D, Demirpençe S, et al. Bronkodilatatör Tedaviye Yanıtsız Hışıltılı Çocuk. Dokuz Eylül Üniversitesi Tıp Fakültesi Dergisi 2007;21:177-80.
4. Rovin JD, Rodgers MB. Pediatric foreign body aspiration. Pediatr Rev 2000;21:86-90.
5. Ünlütürk Ö, Temel Ö, İnalhan M, et al. Çocukluk Çağı Yabancı Cisim Aspirasyonları: 20 Vakanın Analizi. Zeynep Kamil Tıp Bülteni 2010;41:29-33.