

Laryngeal foreign body mistreated as recurrent laryngitis and croup for one year

Sinan Atmaca, Recep Ünal, Teoman Şeşen, Hızır Kılıçarslan, Asude Ünal

Department of Otolaryngology, Ondokuz Mayıs University Faculty of Medicine, Samsun, Turkey

SUMMARY: Atmaca S, Ünal R, Şeşen T, Kılıçarslan H, Ünal A. Laryngeal foreign body mistreated as recurrent laryngitis and croup for one year. Turk J Pediatr 2009; 51: 65-66.

Foreign body aspiration (FBA) is a common, dangerous problem among children of all ages. Laryngeal foreign bodies may present with less severe symptoms compared to lower respiratory tract foreign bodies, resulting in misdiagnosis, confusion and delay. We present the case of a 20-month-old girl with laryngeal foreign body unrecognized for one year. She was treated for recurrent laryngitis and infectious croup several times. A triangular-shaped, red plastic material with sharp edges was removed from the larynx by direct laryngoscopy. The clinical presentation and management are discussed.

Key words: laryngeal foreign body, delay, croup.

Foreign body aspiration (FBA) is a major cause of accidental death in children¹. Children under three carry the highest risk for FBA². While lower respiratory tract foreign body symptoms raise an index of suspicion, laryngeal foreign bodies, particularly those causing incomplete obstruction, may present with a different clinical picture resembling infection³. In this case report, we present a 20-month-old girl with a laryngeal foreign body who was mistreated as recurrent laryngitis and infectious croup for one year. The case is unusual with respect to its long duration before the diagnosis.

Case Report

A 20-month-old girl was referred to the Ear-Nose-Throat Department with complaints of wheezing, hoarseness and persistent cough. The patient had suffered with wheezing and cough for the last 12 months. These symptoms were accompanied by hoarseness, dyspnea and stridor from time to time but there was no history of choking. The patient continued to experience exacerbations resulting in multiple hospital visits. She was diagnosed with acute laryngitis and infectious croup several times. In addition to the multiple hospital visits, she was hospitalized three times and treated with cortisone, adrenaline nebulizer, ultrasonic

humidification, antibiotics and bronchodilators. Although the treatment provided some relief, her symptoms never resolved completely. She was also consulted with Pediatric Allergy and placed on salbutamol and fluticasone inhalers. Her laryngeal computed tomography revealed thickening of soft tissue at the laryngeal posterior wall, at glottic and subglottic levels. On her arrival in our clinic, she had wheezing, hoarseness and cough. Her vital signs were normal but she had supraclavicular retractions. The patient was taken to the operating room for diagnostic laryngoscopy and bronchoscopy; the family was informed about a possible tracheotomy and informed consent was taken. After induction of anesthesia, laryngoscopy was performed. Laryngeal inlet was covered with severe granulation tissue and vocal cords were not identified. Tracheotomy was performed and laryngoscopy was carried out again. Upon removal of granulation tissue, a red colored, triangular-shaped, sharp-edged plastic was seen at the level of the rima glottis attached into the anterior commissure (Fig. 1). The foreign body was removed and the lower respiratory tract was examined to be free of other foreign bodies. The patient was given a follow-up laryngoscopy one week later and was decannulated uneventfully. The patient recovered normal breathing and voice.

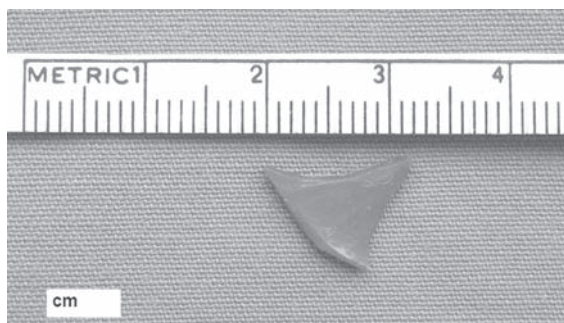


Fig. 1. Photograph of the sharp-edged plastic found at the level of the rima glottis attached into the anterior commissure.

Discussion

Foreign body aspiration is a potentially dangerous problem in the pediatric age group, which can prove fatal. Children under three carry the highest risk, as they are inclined to explore objects with their mouths⁴. Foreign bodies tend to settle in the larynx because they are too large or have an irregular shape with sharp edges^{1,5}. A history of choking or aspiration strongly suggests a FBA. However, a foreign body causing incomplete laryngeal obstruction may present with less severe symptoms, which are hard to differentiate from infectious causes. Although X-ray studies may be helpful in some cases, particularly the ones with metallic objects, normal X-ray findings never exclude the diagnosis of FBA. In delayed

cases, it is harder to make a diagnosis of FBA^{4,6}. In our case, the laryngeal inlet was covered with severe granulation tissue in which the foreign body was embedded. Any combination of prolonged wheezing, cough, hoarseness, stridor and dyspnea should always raise an index of suspicion for FBA, particularly in children. Regardless of history, physical examination and X-ray studies, direct laryngoscopy is the single means of management to rule out or confirm the diagnosis of a laryngeal foreign body, if suspected.

REFERENCES

1. Jesudason WV, Luff DA, Rothera MP. Delayed diagnosis of laryngeal foreign body. *J Laryngol Otol* 2003; 117: 143-144.
2. Ciftci AO, Kologlu MB, Senocak ME, Tanyel FC, Buyukpamukcu N. Bronchoscopy for evaluation of foreign body aspiration in children. *J Pediatr Surg* 2003; 38: 1170-1176.
3. Robinson PJ. Laryngeal foreign bodies in children: first stop before the right main bronchus. *J Pediatr Child Health* 2003; 39: 477.
4. Franzese CB, Schweinfurth, JM. Delayed diagnosis of a pediatric airway foreign body: case report and review of the literature. *ENT J* 2002; 81: 655-656.
5. Cinar U, Vural C, Turgut S. A laryngeal foreign body misdiagnosed as asthma bronchiale. *Eur J Emerg Med* 2003; 10: 334-336.
6. Berkowitz RG, Lim WK. Laryngeal foreign bodies in children revisited. *Ann Otol Rhinol Laryngol* 2003; 112: 866-868.