

Infant with a foreign body bronchus: a fishy situation!

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Foreign body aspiration (FBA) is a common cause of respiratory compromise in early childhood. Numerous unique foreign bodies in the tracheobronchial tree have been reported in the literature. FBA can result in a spectrum of presentations ranging from incidental to acutely life threatening. Described here is a case of inhalation of a live fish caught from a household aquarium by a 10-month-old infant. The infant presented to us with worsening respiratory distress, and an emergency diagnostic rigid bronchoscopy retrieved the fish and the baby survived. This instance highlights the importance of actively investigating pediatric patients with bronchoscopy when suspicion of FBA is high. This case report of a live

fish aspiration in an infant that was successfully removed is a first of its kind. *Ann Pediatr Surg* 13:93–94 © 2017 *Annals of Pediatric Surgery*.

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Introduction

Foreign body aspiration (FBA) is a common cause of respiratory compromise in early childhood. FBA most commonly presents with respiratory symptoms such as wheeze and cough after a choking episode [1]. A careful history and clinical examination can identify those children who need additional investigation, including bronchoscopy [2]. However, if it causes complete airway occlusion it may lead to asphyxia and unfortunately becomes a cause of death. Most inhaled foreign bodies in children are food items, with peanuts being the most common [3]. Herein, we report the case of a 10-month-old infant with aspiration of a live fish caught from a common household aquarium. To the best of our knowledge, this happens to be the first such case described yet. Further, a review of the relevant literature is presented and management is discussed.

Case report

A 10-month-old infant was brought to our casualty with worsening respiratory distress. He had no preceding medical illness. From the history we gathered that he was last seen playing near a low-placed small aquarium at home. His mother had seen him dipping his hands in the water and playing with the pebbles at the bottom. Sensing no immediate danger, he was left unattended for a short period. After a while she noticed the baby coughing with worsening difficulty in breathing and took him to a hospital nearby. He was thought to have acute asthma, but the chest radiograph was interpreted as normal (Fig. 1) and he was given inhaled bronchodilator, which gave him brief respite. However, his situation deteriorated and he was referred to our center, as the suspicion of a foreign body in the bronchus was high by then and the referring physician had become concerned. After a detailed clinical examination in our casualty, we suspected that he might have aspirated a small pebble from the aquarium and took him for rigid bronchoscopy emergently as the situation warranted (oxygen saturation fell to 60% acutely). Bronchoscopy under general anesthesia, to our surprise, revealed a dead fish (inhaled

live 3 h before presentation) in the right main bronchus and it was removed with a pair of grasping forceps (Fig. 2). We used a rigid 3.5 mm (internal diameter) × 30 cm (length) pediatric bronchoscope (STORZ Medical AG, Tägerwilten, Switzerland). Air entry into the right lung improved immediately after removal of the foreign body. The patient recovered well and was discharged home after 3 days of nebulization and steroids.

Fig. 1



Chest radiograph of the infant performed before referral. Normal findings are seen.

Fig. 2



The dead fish retrieved via bronchoscopy from the right primary bronchus.

Discussion

A myriad variety of foreign bodies that have been inhaled by children are described in the literature [4,5]. Foreign body aspiration can be misdiagnosed as asthma, upper respiratory tract infection, pneumonia, or croup [1]. Delay in diagnosis is associated with increased morbidity [6]. As this case report shows, the history, given by the child, parent or other witnesses, is very important as this may identify the object and a high index of suspicion is necessary to initiate prompt treatment.

Most inhaled foreign bodies in the pediatric age group are food items, with peanuts being the most common [3]. The most common location of foreign bodies is the right main bronchus [7]. While there are case reports of aspiration of fish bones or fish fin in older children and adults [7,8], and accidental inhalation of a live blue gill fish in a 40-year-old adult [9], their incidence in the

pediatric age group has been extremely rare. The lowest age reported yet is a 12-year-old boy from rural India who, while fishing, accidentally choked on a live fish, resulting in its lodgment in the left main stem bronchus [10]. Aspiration of a live fish carries a high mortality if in the trachea and incidences of death have been reported [11]. It is possible that a wriggling live fish, in its effort to find an escape route, enters the trachea, resulting in a high chance of choking to death. This report of a live fish aspiration in a 10-month-old infant that was successfully and timely extracted, with the infant surviving, is a first of its kind. It remains baffling as to how a child of that age could catch a swiftly moving fish from an aquarium with his bare hands and inhale it.

Acknowledgements

Conflicts of interest

There are no conflicts of interest.

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