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Spring Pen; An Unusual Foreign Body Aspiration in a Child: A Case Report

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Abstract: ***Foreign body aspiration is a leading cause of death and morbidity in infants, and it should be avoided. FBA can cause a wide range of symptoms, from minor irritation to life-threatening emergencies. Numerous tracheobronchial foreign bodies have been published in the literature. We present the example of an 8-year- boy, foreign body aspiration is a significant and preventable source of mortality and morbidity. Aspiration, which is split into organic and inorganic FB aspiration, is still a common issue among young children. The most widely aspirated organic material is nuts and seeds, while inorganic material includes a wide variety of items such as plastic fragments, toy parts, beads, coins, sticks, and so on. (1), (2) Many influences, including age, sex, dietary habits, geographic location, and socioeconomic status, affect the essence of aspirated FB. 8-year-old boy who came to us with no signs of respiratory problems. The diagnosis of a foreign body aspiration was made based on the history and evaluation, and the bulb was extracted from the right main bronchus using diagnostic rigid bronchoscopy.***

Keywords: Foreign body aspiration, spring pen; main bronchus; rigid bronchoscopy

1. Introduction

Foreign body aspiration is an important and preventable cause of mortality and morbidity in children. Aspiration remains a common problem among young children and is commonly divided into organic and inorganic FB aspiration. Organic material such as nuts and seeds are the most commonly aspirated while the inorganic material include a wide range of objects such as plastic pieces, toy parts, beads, coins, pins etc. (1,2) However, the nature of aspirated FB is influenced by many factors, such as age, sex, nutritional habit, geographical area and socioeconomic status. [3]

Aspiration of the tracheobronchial tube is a worldwide issue that often leads to life-threatening complications. Leading to a lack of proper dentition and immaturity in chewing, it happens mainly in children under the age of three (roughly 75 percent). Three Infants and toddlers, on the other hand, experience their environment from their noses. Following a choking incident, respiratory symptoms such as wheeze and cough are the most frequent signs of foreign body aspiration. 4th Children that need further testing, such as bronchoscopy, may be identified by a thorough history and clinical review. (9) However, if it completely obstructs the airway, it can induce asphyxia and, sadly, death. A case of rare foreign body aspiration (bulb) in a child is presented in this article.

2. Case Report

With abrupt onset of respiratory arrest, an 8-year-old boy was taken to our causality. He has no previous medical records. According to his mother, the boy was playing with his pen when he began to experience choking, gagging, and cyanotic spells. They took the boy to a nearby paediatrician right away, who sent him to us because they suspected he had aspirated something. With abrupt onset of respiratory arrest, an 8-year-old boy was taken to our causality. He has no previous medical records. According to his mother, the boy was playing with a pen when he began to experience choking, gagging, and cyanotic spells. They took the boy to a nearby paediatrician right away, who sent him to us because they suspected he had aspirated something.

On examination, the boy was anxious, and a systematic examination revealed a heart rate of 90 beats per minute, a respiratory rate of 20 beats per minute, and a SpO2 of 90% at room air. On closer inspection, everything seemed to be in order. On auscultation, the left lung had natural air entry. We planned for a diagnostic rigid bronchoscopy with high risk approval since the X-ray chest (AP view) reveals normal translucency in the right lung area (Fig. 1). On examination, the boy was anxious, and a systematic examination revealed a heart rate of 90 beats per minute, a respiratory rate of 20 beats per minute, and a SpO2 of 90% at room air. On closer inspection, everything seemed to be in order. On auscultation, the left lung had natural air entry. We planned for a diagnostic rigid bronchoscopy with high risk approval since the X-ray chest (AP view) reveals normal translucency in the right lung area (Fig.1). Child improved after bronchoscopy and discharged after 2 days.

Figure 1: XRAY chest shows the spring Pen in the Right Main Bronchus

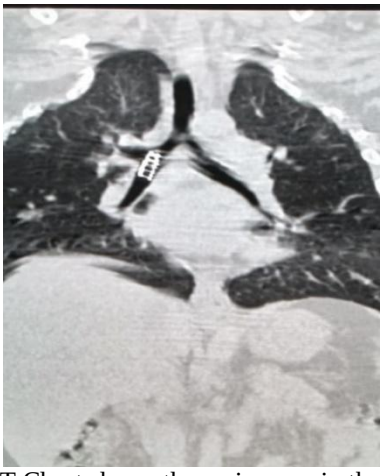

Figure 2: CT Chest shows the spring pen in the right main bronchus

Figure 3: The spring pen removed by Rigid Bronchoscopy

3. Discussion

Asthma, upper respiratory tract fever, influenza, and croup can all be misdiagnosed as foreign body aspiration. (4) An rise in morbidity is linked to a delay in diagnosis. [6]

Patients with suspected FBA can have a chest X-ray as soon as possible. It can detect radio-opaque FB as well as the effects of impacted radiolucent FB, such as hyperinflation, pneumonia, or atelectasis. In certain cases of FBA, normal chest radiographs are observed.

Gustav Killer used a rigid bronchoscope to extract a foreign body from the lower respiratory tract in 1897. Chevalier Jackson mastered endoscopic technique in the first half of the twentieth century. (7) Patients suspected of having FBA should have a bronchoscopy to confirm the diagnosis and, if FB is present, to remove it. (8)

Because of its more vertical orientation, it is commonly assumed that FBs preferentially lodge in the right bronchial tree. However, some new research suggests that FBs are more likely to damage the left bronchia. (11) It was of the left bronchus in our case, as well. Food products are the most often inhaled foreign bodies in children of all ages, with peanuts being the most prevalent. [nineteen] In our situation, the lamp was a part of a small wheeler toy that the boy aspirated when playing. To prevent such situations, parents should stay alert and closely monitor their children's actions.

4. Conclusion

In infants, foreign body aspiration is a significant and preventable source of mortality and morbidity. To treat such cases, specialized physicians must intervene immediately.

5. Conflict of Interest

None declared.

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