



### *Case Report*

## **UNUSUAL FOREIGN BODY IN THE RESPIRATORY TRACT OF CHILDREN**

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### **ABSTRACT**

**Objective:** By "foreign bodies" should be understood all objects of external or internal origin that may block partially or completely the lumen of some parts of the respiratory system - nasal passages, larynx, trachea, bronchi. Most often foreign bodies in the respiratory tract occur in children under 4 y.o. They represent 80% of cases. Twice as often in boys. In 65% of cases, foreign bodies are food particles. 50% of them are accounted for: peanuts, walnuts, hazelnuts, chickpeas, and sunflower seeds.

**Methods:** The author demonstrates a case of an unusual foreign body in the upper airway in a 2 y.o. child. He presented at ENT Clinic in the University Hospital of Stara Zagora with sudden paroxysms of coughing and difficulty swallowing, which started during hugging his mom.

**Results:** It was performed an X-ray examination and visualized an object with a metal consistency that corresponded to a safety pin.

Immediately was realized pediatric and anesthesiologist consultation and the patient was taken to the operating theatre and under general anesthesia, the foreign body was removed.

**Conclusions:** Aspiration of foreign bodies in the airways is accompanied by dramatic moments and often fatal and it is still a serious problem in Otorhinolaryngological and pediatric practice. This imposes the serious need to strengthen preventive actions in this direction by increasing the consumer culture of the people.

**Key words:** aspiration, foreign body, children, airways

### **INTRODUCTION**

By "foreign bodies" should be understood all objects of external or internal origin that may block partially or completely the lumen of some parts of the respiratory system - nasal passages, larynx, trachea, and bronchi. Most commonly they occur in children under 4 y.o. and represent 80% of cases. Twice as often in boys. In 65% of cases that have food particles. Of these, 50% is accounted for: peanuts, walnuts, hazelnuts, chickpeas, and sunflower seeds [1, 2].

Mechanical protective reflexes of infants are not yet sufficiently well-defined and therefore occur aspiration of foreign bodies with a laugh, cry, cough, or a game [3]. Following exposure of the foreign body into the trachea often occurs deep inhalation of children with the risk object to fall down into the bronchial tree.

Despite the diversity of foreign bodies in origin and size, symptoms are characterized by a few moments - sudden onset, cyanosis, and coughing. In most cases, the incident was spotted by the parents. Cough is strong, but not constant and may soon stop - fixing a foreign body in some segments of the respiratory system.

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In a minority of cases (2-5%), foreign bodies can be spontaneously coughed but it should not be relied upon [4].

#### CASE

The author demonstrates a case of an unusual foreign body in the upper airway in a 2 y.o. child. The young boy presented at ENT Clinic in University Hospital of Stara Zagora with sudden paroxysms of coughing and difficulty swallowing, started while hugging his mom.

Physical examination demonstrated worried expression of the child, tachypnea, raised

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salivation, inspiratory stridor with prolongation of the inspiratory phase. We didn't observe intercostal, epigastric, and suprasternal retractions and cyanosis. The child was afebrile. Normal findings in pharyngoscopy, we observed only a large amount of saliva in the oral cavity and hypopharyngeal space.

It was performed an X-ray examination where was visualized an object with a metal consistency corresponding to a safety pin (**Figures 1, 2**).



**Figure 1.** Conventional x ray - lateral view



**Figure 2.** Conventional x ray - front view

Immediately was realized pediatric and anesthesiologist consultation and the patient was taken to the operating theatre and under general

anesthesia, the foreign body was removed (**Figure 3**).



**Figure 3.** Removed foreign body (safety pin)

## DISCUSSION

Aspiration of foreign bodies in the airways is accompanied by dramatic moments and often fatal and it is still a serious problem in otorhinolaryngological and pediatric practice.

In the case of a foreign body aspiration by children, the only effective treatment is removal. We believe and insist on practice to check all cases giving rise to suspicion of a foreign body airway. The child must be brought to the nearest hospital with a skilled team pulling the foreign body. There are no contraindications for bronchoscopy performing with reasonable

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suspicion of foreign bodies in the respiratory tract [5].

Care must be taken for a fixed foreign body during transport that can become mobile and cause fatal laryngo- and bronchospasm.

These findings require a serious need to strengthen preventive action in this direction by increasing the consumer culture of people.

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