

Case Reports

Unusual Upper Airway Symptoms, Think of Foreign Body

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Introduction

Foreign Body (FB) aspiration is a leading cause of mortality and morbidity in pediatric age group. The majority of victims are toddlers between the ages of 1-3 years. The FB can completely obstruct the airway leading to instant death. The smaller objects can pass and lodge commonly in the main right bronchus but it can be trapped anywhere even in the larynx. Most common objects are food, but young child can choke with any tiny object. The history is essential in making the diagnosis but it can be negative thus highly suspicion is vital in such cases.

Case Report

Our 18-month-old patient firstly presented to our Emergency Department with cough, cold and breathing difficulty. On examination, her vital signs were normal, she had stridor, equal breath sounds bilaterally in chest. A diagnosis of viral croup was made and the child made a good recovery on dexamethasone and discharged home after two hours of observation with advice to attend emergency again if symptoms worsen. The patient continued to have a 'strange' cough and symptoms were getting worse. The parents took her to different clinics where she was treated as URTI/croup each time. After 6 weeks, the child landed back in our Emergency Department. Parents stated general deterioration in her general activity, poor oral intake and the cough was only getting worse. On examination: Child was in respiratory distress with stridor. Air entry was normal on auscultation and there was significant multiple cervical lymphadenopathy. In view of persistent stridor and worsening of the upper airway obstruction symptoms, neck x-ray was performed which showed the FB in the larynx. (Figure 1,2)



Figure 1: Lateral Neck X-Ray Shows the Foreign Body.



Figure 2: Anteroposterior Neck X-Ray.

Laryngoscopy revealed the FB retained in the junction of hypopharynx and laryngeal inlet and it was removed carefully. (Figure 3)



Figure 3: Foreign Body After Removal.

The laryngeal vestibule was covered with granulous tissue obstructing the vocal cords (Figure4). Child was intubated with the help of rigid bronchoscope and admitted to the Intensive Care Unit. There was significant resolution of the granulous tissue within two days and patient extubated uneventfully.



Figure 4: Laryngoscope reveals the granular tissue in the larynx.

Patient was followed up in the clinic after 2 weeks, she was asymptomatic and doing well. Parents were contacted two months later; they reported significant improvement in appetite and dramatic changes in speech development.

Discussion

Children have a tendency to explore new entities by their mouths, their airways are small, the air force, generated by their cough, is less effective in dislodging the trapped objects. These factors put pediatric age group at high risk of aspiration especially those younger than 3 years [1]. If the FB did not obstruct the airway totally, there will be second stage when the initial symptoms will minimize. If the FB was not diagnosed and removed at this stage, in the absence of significant history, complications follow and give wide range of symptoms [1] as in our presented case.

In one review of laryngotracheal foreign bodies, choking history was absent in 10% of cases [2]. Literature review of similar cases with delayed diagnosis, [3,4] revealed that children passed to the second stage although the FB was lodged in the larynx. Reason for this could be: foreign bodies partially obstructed their airways due to the irregular shape of them. Neck x-rays can help in the diagnosis of FB but as most foreign bodies are radiolucent, the

bronchoscopy remains the method of choice for both diagnosis and removal of the FB [5].

Reliable history and detailed physical examination in the absence of typical response to the treatment of upper airway obstruction symptoms can strongly suggest the diagnosis of a FB impaction. In such cases, neck x-ray and bronchoscopy should be considered in approaching the patient.

Why should an emergency physician be aware of this?

- Airway foreign bodies are common in pediatric patients and diagnosis should be considered in any atypical presentation of upper airway obstruction even in the absence of choking history.
- Although uncommon site, foreign bodies can lodge partially in the larynx giving symptoms of upper airway obstruction. In such case, neck x ray may support the diagnosis of FB but the bronchoscopy is the only method to exclude it.
- If they were overlooked, foreign bodies in pediatric airways can carry significant risk of morbidity, so early diagnosis is crucial and if suspected, x-ray and bronchoscopy should be strongly considered.

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