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IMPACTED FOREIGN BODY IN THE SUBGLOTTIS : A CASE REPORT

ABSTRACT

Foreign body in the airway is a common problem in children, which may prove fatal many a times. Foreign body in larynx is uncommon, which may have delayed diagnosis. We present here an unusual case of foreign body (bone), lodged in the subglottic region of larynx for one month in a 13 year old child.

Keywords: Foreign body, Impacted, Larynx

INTRODUCTION

Foreign body in the larynx is an emergency situation which should be urgently managed, as it may prove fatal. Airway foreign bodies are common in children, with highest incidence between one to three years of age.[1] A minority of these objects impact the larynx.[2] Large foreign bodies like metallic objects, plastic materials, toys are common in larynx, whereas smaller foreign bodies like seeds, nuts, corn, whistle are common in the tracheobronchial parts of the airway. Foreign bodies like bone is very rare to get impacted in the larynx as in our case, as they commonly get impacted in the digestive tract.

CASE REPORT

A 13 years old boy, hailing from a very remote part of the country, presented in our outpatient department with complaints of change in voice for last one month. Stridor was present. On neck examination, there was tenderness in midline, just below the level of thyroid cartilage. Flexible nasopharyngolaryngoscopy was performed, which revealed a whitish foreign body in the subglottis, partially covered with granulation tissue. On phonation, there was partial adduction gap. X-ray of the neck lateral view and antero-posterior view revealed a linear radioopaque shadow placed in the airway (Figure I). Retrospectively, after seeing the foreign body in endoscopy, we obtained the history of choking while eating meat one month back, followed by cough and change in voice. He also had shortness of breath on exertion for last one month. We planned the case for emergency removal of foreign body. Elective tracheostomy was performed under local anaesthesia. Then, general anaesthesia

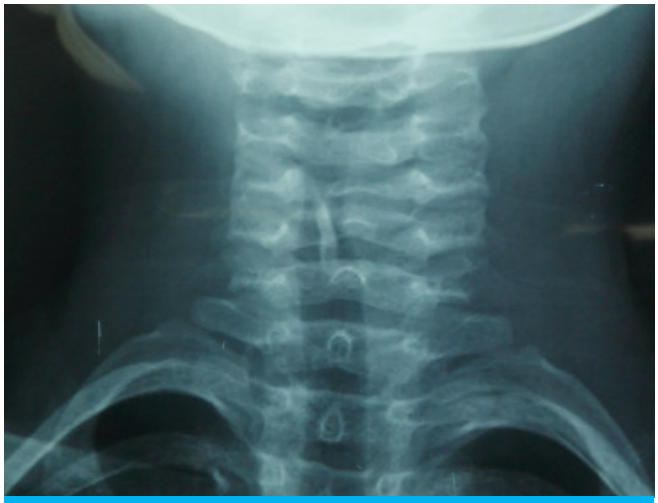

Fig I: Plain X-ray neck AP view showing a sharp linear radioopaque shadow.

was given via the tracheostomy tube and we performed direct laryngoscopy with removal of the bone from the subglottis (Figure II). There was minimal bleeding after removal of the bone, so we kept the tracheostomy tube inflated for next 24 hours, following which decannulation was

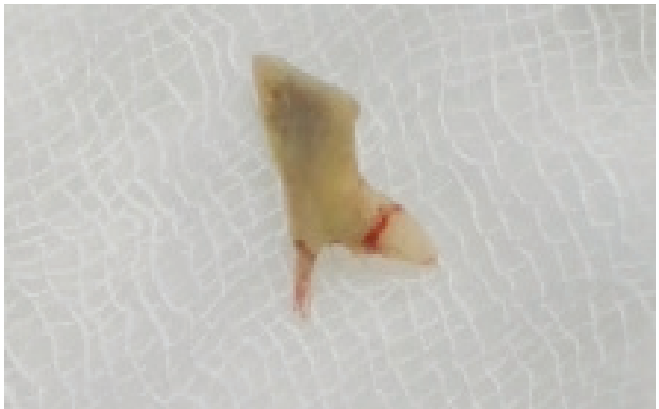

Fig II: Bone removed from the subglottis

done. The postoperative period was uneventful and the patient was discharged.

DISCUSSION

Foreign body aspiration is common in children due to their habit of exploring the environment, putting anything in their mouth, lack of dentition and the poor swallowing mechanism.[3] There can be delay in diagnosis of airway foreign body due to lack of proper history. We should have a high degree of suspicion of foreign body in the airway in a child, if there is sudden onset of difficulty in breathing, noisy breathing and cough.

Foreign bodies lodge in the larynx if they are too large to pass through or if they have an irregular shape or have sharp edges which can catch on the laryngeal mucosa.[4] Foreign body in the larynx or upper airway may mimic croup, laryngeal papillomatosis, laryngomalacia or subglottic stenosis.[5] Laryngeal foreign body can lead to laryngeal odema which may prove lethal.

Dealing with airway foreign body is a really challenging task. The degree of difficulty will depend on a number of factors like the age of the patient, the type of foreign body inhaled, the interval between inhalation and removal, the skill of the anaesthetist and the equipments available.[4]

The foreign body, which was a bone in our case lodged in the subglottis for one month. The delay in presentation to our centre was due to lack of knowledge of the parents about possibility of foreign body lodgment in the airway and due to their stay in remote area, where the health care facility is poor. The bone compromised the airway only partially due to its sagittal orientation, allowing air to pass on its either side. We performed elective tracheostomy in this case due to possibility of bleeding while removing the sharp object (bone) that was covered with granulation tissue. The added advantage of tracheostomy was ease in giving general anaesthesia for the removal of the foreign body.

CONCLUSION

Foreign body in larynx should be suspected if a child presents with sudden onset of difficulty and noisy breathing, cough and change in voice. Elective tracheostomy with removal of the foreign body should be the proper management for such case.

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