

CASE REPORT

MANAGEMENT OF LARYNGEAL FOREIGN BODIES - A CHALLENGE FOR OTOLARYNGOLOGIST AND ANAESTHESIOLOGIST-CASE REPORT

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ABSTRACT: Inhalation of foreign body is a serious event. A very small proportion of foreign bodies get impacted in the larynx. Any foreign body in the larynx presents usually as a respiratory emergency, when urgent recognition is required to prevent disaster. The diagnosis and treatment of foreign bodies in the airway are a challenge for otolaryngologists. Despite improvements in medical care and public awareness, approximately 3000 deaths occur each year from foreign body aspiration, with most deaths occurring before hospital evaluation and treatment. A high index of suspicion is needed for foreign body aspiration to allow for prompt treatment and avoidance of complications. The majority of foreign bodies pass through the glottis into the trachea and main bronchus. Sticky, thorny or irregular shaped foreign bodies may get lodged in the larynx¹ (Mundra et al, 1989). Two cases of laryngeal foreign bodies one of fish bone impacted in the larynx, in anteroposterior and another of coin also in anteroposterior position are presented here along with a brief review of literature.

KEYWORDS: Foreign body, larynx, Coin, Fish Bone.

CASE REPORT 1: A 40-year-old adult presented to the casualty department of Government ENT Hospital Hyderabad with the chief complaint of hoarseness.

History revealed that the patient had accidentally swallowed a two rupee coin while casually fiddling with it and rolling it in the mouth. Apart from anxiety, general physical examination revealed nothing significant.

It was noted that apart from little hoarseness patient was not in any significant noticeable signs and symptoms of airway compromise or respiratory distress. Indirect laryngoscopy showed the said coin to be impacted at the laryngeal inlet. X-rays confirmed the site of the coin (Figure 1).

As the foreign body was at the larynx it was decided not to intubate the patient which may further push foreign body into trachea, after good pre oxygenation and premedication with glycopyrrolate patient was induced with propofol 100mg and muscle relaxant suxamethonium 100mg ventilated gently with mask and 100% oxygen.

The coin was found impacted obliquely at the laryngeal inlet with one smooth edge jagged at the anterior commissure. The said coin was then removed by direct laryngoscopy and crocodile forceps Post-op laryngoscopy revealed a slight bruise at the anterior commissure.

Post-operative period was uneventful with no untoward incident to report and the patient was kept in regular follow-up. A normal larynx was viewed at the end of 6 weeks by Indirect Laryngoscopy.

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Fig. 1

Case Report 2: A 22 year old man presented to the E.N.T., O.P.D. with history of fish bone aspiration of two days duration. He gave complaint of stridor, hoarse voice and excessive salivation. After initial clinical examination which was inconclusive, an urgent radiological examination was advised. Radiograph of soft tissue neck lateral view demonstrated a radio-opaque foreign body in the laryngeal and upper tracheal region (Fig. 2 and 3).

Emergency by laryngoscopy under general anaesthesia was planned. Similar anaesthetic procedure was adopted as was done for first case which went uneventful. The foreign body was found to be a large fish bone, measuring approximately 1.5 cm. in length, lodged in between the vocal cords anteroposteriorly. The fish bone was removed with little maneuver. The post-operative recovery was uneventful.



Fig. 2



Fig. 3

DISCUSSION: FB impaction in larynx in an adult is a rare phenomenon, as the sphincteric action of the larynx is well developed to protect the lower respiratory airway. Hence, most of the foreign bodies are seen in the hypopharynx or they go past the glottis into the bronchus. Impaction in adults is thus seen only in unconscious patients or those intoxicated with alcohol.

Foreign Body lodges in the larynx if it is too large to pass through or if it is of an irregular shape with sharp edges that can catch on the laryngeal mucosa. Contrary to these medical facts, it is interesting to note that a smooth and rounded coin got impacted in the larynx of our conscious

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patient. In addition, in the said case intubation, was avoided as there was risk of dislodgement of coin into the lower respiratory passages.

As the patient was very anxious it was planned for general anaesthesia. It is however, pertinent to note that such cases should always be operated with good anesthetic back-up, for obvious reasons in the best interest of patient care.

Anteroposterior length of the glottis at birth is 7-9mm which increases to 23mm in adult male². The lateral width in full abduction similarly increases from 6mm at birth to 19mm in adult. When a foreign body tries to pass down the vocal cords, spasms and forced expiratory coughing may expel the foreign body out of the larynx.

On the other hand, if the expiratory coughing is weak and the resistance offered by the aryepiglottic folds is enough, the foreign body is held up in the vestibule of the larynx. Even a forceful cough may fail to expel foreign bodies with sharp IJO & HNS, August 1999. 0 21 Foreign Bodies in the Larynx--It. Bora et al edges or projections (Sinha et al, 1995)³ as was the case in the second patient in our report. "Majority cases who reach hospital have already got over the acute phase and thus there is no acute danger to patients' life.

These cases should be approached with full consideration of physiological and mechanical factors involved. The saying that two hours spent in preparation will need only two minutes in removing the foreign body and vice versa is a time tested dictum"⁴ (Chaturvedi et al, 1988). Endoscopies should be carried out keeping the preparation for tracheostomy ready if need arises or a preliminary tracheostomy may be done if the airway is in a danger to become severely compromised.

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