A FOREIGN BODY IN THE LARYNX

Case Report

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SUMMARY
The case is described of a young man admitted with a head injury who had inhaled a dental plate. This did not cause any symptoms, and was unsuspected until attempted endotracheal intubation proved very difficult. It was shown by radiography to be lying in the larynx, and was subsequently removed. The patient made an uneventful recovery.

Case reports of foreign bodies in the larynx are published from time to time (Lewis, 1965; Gilbert, 1970). They frequently demonstrate unusual features and we now add to this literature by reporting an incident which revealed another facet of the problem of inhaled foreign bodies.

CASE REPORT
A 19-year-old male, employed as a felter, was admitted to the Department of Neurosurgery, having fallen about 40 feet from a roof on which he was working. He was unconscious, with a unilateral-fixed dilated pupil, but he was reacting to painful stimuli. There was a large irregular laceration in the right fronto-temporal region with exposure of underlying bone and multiple abrasions on the face and right side of neck. The right upper lateral incisor tooth was broken, and the detached portion was missing. There was mild hyperventilation, but no obvious distress or other respiratory abnormality. Radiographic examination displayed a fracture of the right frontal bone extending into the frontal sinus. The cervical vertebrae showed no fracture. There was no clear evidence of a foreign body.

Because of suspected subdural haematoma, the patient was taken to theatre for burr hole exploration, toilet and suture of the lacerations. After giving atropine 0.4 mg IV., anaesthesia was induced with thiopentone 250 mg followed by suxamethonium 75 mg. Intubation was then attempted, but was found to be extremely difficult. He was allowed to restart breathing spontaneously and was then deeply anaesthetized with halothane. By this stage, the patient had developed an inspiratory and expiratory stridor. Re-examination of the larynx showed it to be disorganized and oedematous, with considerable submucosal haemorrhage. A small orifice was visible, and through this an uncuffed 6.0-mm armoured tube was inserted.

Anaesthesia was continued with halothane and nitrous oxide to permit evacuation of the subdural haematoma and suture of lacerations. At the end of the operation, a member of the e.n.t. team was asked to perform a more thorough examination of the larynx.

Direct laryngoscopy was carried out, and this revealed a piece of pink cartilage-like material lying in the laryngeal aditus, completely obscuring the view of the left vocal cord. This was devoid of mucous membrane and felt firm on probing. The arytenoids were intact and in normal position. The appearance was strongly suggestive of fracture of the left thyroid lamina and, as a result, a tracheostomy was performed.

Further radiological examination of the larynx was carried out on the following day. The resulting A-P films and a review of the previous ones demonstrated the presence of a foreign body, probably a dental plate, lying in the larynx so that its long axis was vertical (fig. 1). There was no evidence of fracture of the larynx. The patient was then anaesthetized, and the foreign body was removed under direct laryngoscopy. It measured 3.5 cm × 2 cm (fig. 2).

Fig. 1. Radiogram of the cervical spine showing the dental plate.

Fig. 2. Dental plate after removal.
Three days after the original injury, examination of the larynx showed some residual congestion and oedema of an otherwise normal larynx. The tracheostomy tube was removed, and the opening was allowed to heal over. Subsequently, the patient made an uneventful recovery from his injuries, and speech was unimpaired.

**DISCUSSION**

It is usually possible to diagnose the presence of a foreign body in the larynx in the acute phase of entry because of a readily available history of intake, and signs or symptoms referable to the foreign body in the highly sensitive air passage. This may not be so, however, in an unconscious patient. The case reported here presented a puzzling emergency. Apart from the broken incisor, there was only one other tooth missing, and it was not suspected that he had been wearing a dental plate for this. It is not known at what stage the denture was inhaled. Since it was a well-fitting plate, it is probable that the combination of a severe jolt and a sharply indrawn breath would have been needed to impact the foreign body in the larynx.

It is remarkable that the patient had no respiratory distress when seen initially despite the presence of a fairly large object in the aditus. This confirms the observation of Chevalier Jackson (1936) that a thin foreign body may lodge in the antero-posterior position between the cords and remain there with little impairment of voice. The development of stridor in this case following attempted intubation may indicate that the denture was disturbed by the attempt but may also have resulted from increasing oedema.

The question arises as to the need for a tracheostomy in this instance. Had the plate been seen and recognized at the original laryngoscopy, it would be argued that a tracheostomy might have been avoided. However, the degree of oedema and submucosal haemorrhage were in themselves sufficient justification for an operation which carries little risk and could well save the sudden complete closure of the airway which sometimes characterizes glottic swelling.

The episode does provide a reminder, however, that where airway problems are found to coexist with injury, the possibility of foreign body should always be borne in mind. In these cases, there should be a meticulous examination of radiographs for inhaled objects as well as for bony fractures. Had the accident caused primary laryngotracheal injury as was at one time a considered diagnosis, then it is probable that surgical emphysema would have been present (Seed, 1971).

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**REFERENCES**


**UN CORPS ETRANGER DANS LE LARYNX:**

**A PROPOS D'UN CAS RAPPORTÉ**

**RESUMEN**

El caso se refiere a un joven, que ingresó con heridas en la cabeza y que había inhalado una prótesis dental. No había molestias y no se sospechó nada hasta que se intentó una intubación endotraqueal, cuya realización resultó difícil. Por radiografía se demostró que estaba en la laringe, siendo extraída después. La recuperación del paciente fue normal.