Isolated hyoid fracture as the result of judo practice: a rare cause of globus sensation in ENT outpatients

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DESCRIPTION

Isolated hyoid fractures are rare injuries, usually associated with road traffic accidents, trauma or strangulation.¹ The majority present immediately to the emergency department with neck pain, dysphagia and dysphonia. Severe injuries can lead to airway compromise and complications include deep neck abscess and carotid artery pseudoaneurysm.^{2,3}

There are only two reported cases of patients presenting in a delayed fashion to ear, nose, throat (ENT) outpatients with foreign body sensation or dysphagia.^{4,5}

This 36-year-old patient presented to ENT outpatients with a globus sensation for several weeks. Common causes of globus include reflux and muscle tension. Hypopharyngeal cancers very rarely present with globus sensation, but red flag symptoms should be ruled out.⁶ The patient had

Patient's perspective

The patient was invited to comment, 2 years after his initial presentation:

My hyoid feels to have completely healed. I have continued with judo and have been strangled many times since, but have not experienced any further symptoms or effects of this hyoid fracture.

Learning points

- ▶ Hyoid fractures are a rare cause of globus or foreign body sensation.
- ▶ Most hyoid fractures are associated with road traffic collisions, trauma or strangulation.
- ▶ Isolated hyoid fractures can be safely managed conservatively.

Figure 1 Intraoperative image of laryngoscope view. The lesion can be seen projecting medially from the left hypopharynx (red arrow).

Figure 2 CT of the neck with contrast. (A) Axial view: the fracture of the greater cornu can be seen, with asymmetry in the angulation of the left hyoid cornu compared with the right (white arrow). (B) Coronal view: the tip of the greater cornu can be seen projecting into the larynx (red arrow).

no associated dysphagia or odynophagia, no nasal obstruction or postnasal drip and no evidence of laryngopharyngeal reflux. He was fit and well with no medical conditions and was an ex-smoker who had quit 10 years ago and only drank alcohol occasionally.

On flexible nasendoscopy, there was a lesion in his left hypopharynx above the arytenoids that initially appeared to be a mucus retention cyst. The rest of the examination was unremarkable, and he was booked for microlaryngoscopy and potential excision biopsy.

Intraoperatively the lesion was examined more closely, and was bony hard to palpation. The lesion could be seen protruding medially towards the white endotracheal tube (figure 1). Suspicion arose that this was likely a fracture of the hyoid greater cornu, and a CT of the neck with contrast was arranged. This confirmed the diagnosis with a fracture of the left hyoid cornu projecting into the larynx (figure 2).

On follow-up appointment, it was revealed that the patient regularly practised judo, and it is likely that a headlock or strangulation move during practice caused the injury. Management options of external fixation versus conservative management were discussed. The patient was greatly reassured by the diagnosis and his symptoms had improved. He agreed to pursue conservative management with an open follow-up appointment in case of future problems. This appointment was not taken up, and he was completely asymptomatic when contacted 2 years later.

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A 2012 review of hyoid fracture management identified 46 cases in the literature, of which 43.4% (n=20) were associated with major concurrent injuries including mandibular and facial fractures, cervical spine fractures and airway compromise requiring tracheostomy. Only 10.8% (n=5) of cases required surgical repair of the hyoid bone.⁷ Review of 31 isolated hyoid bone fractures suggests that rest and simple oral analgesia are sufficient to manage most asymptomatic or minimally symptomatic fractures. All patients who were followed up had improvement or resolution of their symptoms, and repeat imaging was not routinely performed.¹ No nerve blocks have been recommended for management of hyoid fractures, however stylohyoid blocks can be effective in hyoid tendonitis and may be useful if pain from a hyoid fracture is severe or persistent.⁸

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