

Conflict of interest

We have no conflicts of interest.

Ethics statement/confirmation of patient's permission

Ethics approval not required. We obtained permission from the patient's parents.

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McAllister P.*

Oral and Maxillofacial Surgery, Royal Hospital for Children, Glasgow, UK

O'Neill T.

Royal Hospital for Children, Glasgow, UK

Devlin M.

Cleft and Maxillofacial Surgeon, Royal Hospital for Children, Glasgow, UK

*Corresponding author at: National Cleft Lip and Palate Service, Royal Hospital for Children, Glasgow, UK.

E-mail address: pmcallister2@nhs.net (P. McAllister)

Available online 25 April 2019

<https://doi.org/10.1016/j.bjoms.2019.04.004>

Glossopharyngeal neuralgia: a case report

Sir,

Glossopharyngeal neuralgia is rare and affects the glossopharyngeal nerve and some regions that are supplied by the vagus nerve.¹ Patients report brief, intense episodes of paroxysmal pain in structures such as the soft palate, tonsillar fossa, posterior third of the tongue, oropharynx, auditory canal, middle ear, or angle of the mandible.^{1–4} Continuous neuropathic pain may also occur.² In 10% of cases the involvement of the vagus nerve results in parasympathetic symptoms such as bradycardia, hypotension, syncope, seizures, and asystole.^{2,3}

As a result of the numerous structures that may be affected, clinical presentations of glossopharyngeal neuralgia vary. Symptoms may be suggestive of many other conditions such as temporomandibular dysfunction,⁴ trigeminal

Box 1: Diagnostic criteria for glossopharyngeal neuralgia.

- A Repeated paroxysmal attacks of pain in the distribution of the glossopharyngeal nerve on one side
- B Pain has the following:
 - 1 Short duration (<2 minutes)
 - 2 Severe intensity
 - 3 Electric shock-like, shooting, stabbing or sharp in quality
 - 4 Precipitated by swallowing, coughing, talking or yawning
- C Not better accounted for by another diagnosis

neuralgia,⁴ superior laryngeal neuralgia,^{1,5} nervus intermedius neuralgia,⁵ and first bite syndrome. Occasionally, pain can even radiate to the eye, nose, chin, or shoulder,¹ which can further complicate the history. Patients may also struggle to localise or describe pain accurately, which affects the deep structures of the head and neck.⁵

A 78-year-old man was referred by his general dental practitioner with left-sided pain in the temporomandibular joint (TMJ). He complained of a two-year history of a constant dull ache in the region of the left ear and TMJ, which was interrupted by short episodes of intense, stabbing pain that occurred mainly while he was eating. Clinical examination showed no intraoral or extraoral abnormalities.

Updated diagnostic criteria for glossopharyngeal neuralgia have been published (Box 1), which include: repeated paroxysmal pain on one side, along the glossopharyngeal nerve; pain that is short-lived (under two minutes), severe, intense, sharp, stabbing and electric-shock-like; pain that is preceded by swallowing, yawning, talking, or coughing and; pain that cannot be explained by any other diagnosis.¹ Based on these criteria, we made the diagnosis. While it is mostly academic for medically-managed patients, accurate differentiation between trigeminal and glossopharyngeal neuralgia is still essential because of the variety of surgical options.

Many cases of glossopharyngeal neuralgia are idiopathic,² but imaging must be done to assess the potential causes such as vascular malformation, demyelinating diseases, intracranial and extracranial tumours, infections, injury, Chiari-I malformation, or Eagle syndrome.^{2,3,5} High-resolution magnetic resonance imaging is recommended for all patients,^{2,4} and computed tomography can be used adjunctively.⁵ Nasendoscopy is particularly useful to screen for local causes, such as malignancy in the oropharynx.³

The medical management of trigeminal and glossopharyngeal neuralgias are similar.² Current research supports the use of carbamazepine as a first-line treatment for all patients, unless contraindicated,^{2,4} and if it is poorly tolerated, oxcarbazepine can be used, as it has fewer side effects.^{2,4} Second-line treatment with baclofen or lamotrigine is supported by level C evidence,^{2,4} but there is also

agreement in recent publications that gabapentin, pregabalin, and phenytoin can be effective in some patients.^{2,5} Tricyclic antidepressants may occasionally be used alongside the anticonvulsants,⁵ but are rarely used on their own. After trying carbamazepine and oxcarbazepine initially, we successfully managed our patient with gabapentin 1800 mg daily, in divided doses.

A diagnosis of glossopharyngeal neuralgia should be considered for any patient who presents with unilateral paroxysmal pain in the head and neck. The availability of specific diagnostic criteria can aid in inclusion or elimination of this condition from a differential diagnosis. If the condition is refractory to initial medical management, other drug treatments or procedures may be offered to ensure that symptoms are brought under control.

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Ethics statement/confirmation of patient's permission

Ethics approval was not required for this project. The patient's consent was obtained.

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C.D. Simpson*

N. Rahman

Department of Oral Surgery, Edinburgh Dental Institute,
UK

P.-J. Lamey

Department of Oral Medicine, Edinburgh Dental Institute,
UK

* Corresponding author at: Department of Oral Surgery,
Edinburgh Dental Institute, Lauriston Building, Lauriston
Place, Edinburgh, EH3 9EN, UK

E-mail addresses: callum.simpson1@nhs.net

(C.D. Simpson), Naomi.Rahman@nhslothian.scot.nhs.uk

(N. Rahman), Philip.Lamey@nhslothian.scot.nhs.uk

(P.-J. Lamey)

Available online 7 May 2019

<https://doi.org/10.1016/j.bjoms.2019.04.005>

Incidental finding of an accessory inferior alveolar nerve

Sir,

Accessory mental foramina that lead to accessory mandibular canals have been described with a prevalence of 1.35% in a population studied by Choi and Han,¹ and bifid mandibular canals have been reported in 0.08% - 65%.² We report a case of bilateral sagittal split osteotomy (BSSO), in which an accessory inferior alveolar nerve (IAN) was noted.

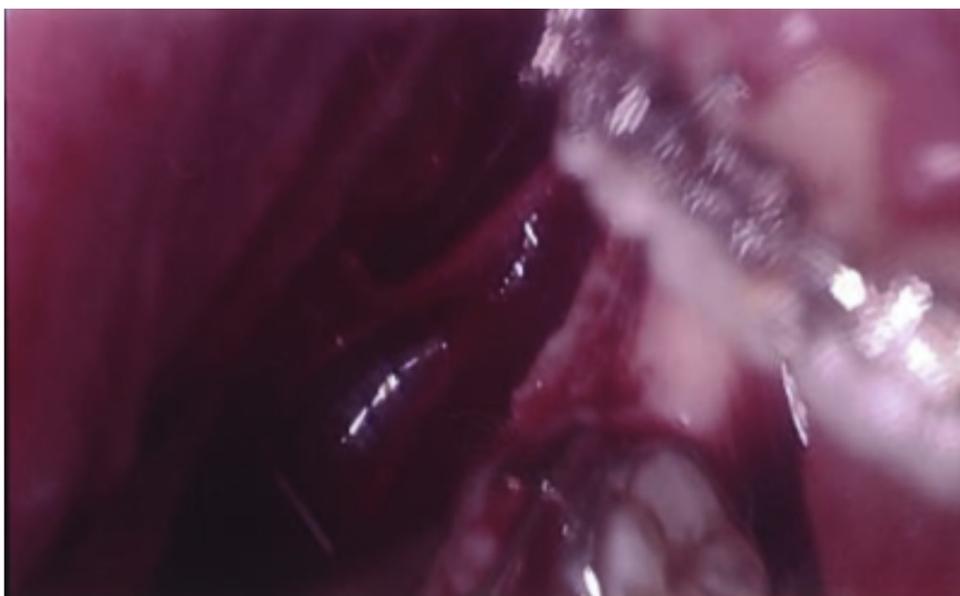


Fig. 1. Intraoperative photograph showing the accessory inferior alveolar nerve.