Oral medicine

Isolated unilateral hypoglossal nerve palsy

Sir, hypoglossal nerve palsy (HNP) is a rare condition affecting the head and neck region. Patients with HNP present with a wide range of symptoms, including difficulties with speech or swallowing, or changes in the tongue appearance. The clinical appearance of HNP is characteristic including lateral tongue atrophy with fasiculations and deviation of the tongue during protrusion.

We wish to highlight the importance of early recognition of this condition and the need for prompt secondary referral. We present four cases of HNP that were seen within a department of oral and maxillofacial surgery.

Case 1

A 71-year-old female was urgently referred by her dentist. She described a one-month history of difficulty protruding her tongue and manipulating food. On examination, she had an audible lisp, with right-sided tongue deviation and weakness in keeping with a right-sided HNP. Subsequent investigations identified a 3.5 cm mass involving the base of the clivus bone. After multidisciplinary input, histology confirmed a diagnosis of chordoma. The patient subsequently completed a course of radiotherapy.

Case 2

An 81-year-old male was urgently referred by his doctor. He complained of a lump in his neck and a painful tongue which was making swallowing difficult. On examination, a left HNP was present. Subsequent investigations led to a diagnosis of squamous cell carcinoma (SCC) of the left tongue base. The patient was treated with primary chemo-radiotherapy.

Case 3

A 53-year-old male was urgently referred by his doctor. He reported a vague history of difficulty swallowing over a 6-month period. On examination his tongue showed left-sided atrophy and deviation to the left on protrusion. He also had a firm fixed level 2 lymph node. Further investigations identified a moderately differentiated SCC of the tongue base. The patient underwent a left-sided selective neck dissection and primary chemo-radiotherapy to the tongue base.

Case 4

A 55-year-old female was referred by her dentist. She described a one-month history of difficulty moving her tongue and changes in its appearance. On examination her tongue was deviated to the right hand side with obvious atrophy. Subsequent investigations included nasoendoscopy, magnetic resonance imaging (MRI), computed tomography (CT) and PET scanning; results of which were unremarkable. The patient was reviewed periodically for six months and over this time her idiopathic transient HNP resolved.

Conclusion

Although HNP is rare, it should be regarded with suspicion. The majority of these patients initially present to primary care practitioners and hence it is vital that a good understanding of this condition is present. Thorough history and examination followed by urgent referral to a two-week-wait clinic is the expected standard. Literature supports a strong association between nerve palsies and malignancy. This small case series demonstrates the same.

We seek to highlight that awareness of abnormal tongue morphology or mobility is essential, and recognition of symptoms should alert suspicion and prompt rapid referrals to secondary care.

> A. Cant, B. Collard, Dublin DOI: 10.1038/sj.bdj.2018.596

Orthodontics

Mandibular advancement appliances

Sir, I was very concerned by the article written by Professor Johal in a recent *BDJ* Upfront article (*BDJ* 2018; **224**: 675). For patients with sleep apnoea, he recommends the use of use of mandibular advancement appliances (MAA) 'which work by posturing the lower jaw forward keeping the airway open'. It is well known that in the long term, these appliances pull back the maxilla and increase vertical growth which inevitably further restricts the airway, worsening the very problem they claim to cure.



UPFRONT

One of the earlier papers on this subject was in 2003 by Robertson and others,¹ 'An increase in face height and reductions in overbite and overjet were evident at 6 months'. Similar findings are constantly found in the many references below with no contrary findings.²⁻⁵ The problem seems to be related to vertical facial growth which is a common sequel to orthodontic treatment of almost any kind.

The only system that claims to reduce vertical growth is orthotropics (Fig. 1) which was developed by myself but evidence is hard to obtain since I had my license to practice removed for promoting it.

J. R. C. Mew, by email

- Robertson C, Herbison P, Harkness M. Dental and occlusal changes during mandibular advancement splint therapy in sleep disordered patients. *Eur J Orthod* 2003; 25: 371–376.
- Alessandri-Bonet-G, D'Anto V, Stipa C, Rongo R, Incerti-Parenti S, Michelotti A. Dentoskeletal effects of oral appliance wear in obstructive sleep apnoea and snoring patients. *Eur J Orthod* 2017; 39: 482–488.
- de Almeida F R, Lowe A A, Sung J O, Tsuiki S, Otsukad R. Long-term sequellae of oral appliance therapy in obstructive sleep apnea patients: Part 1. Cephalometric analysis. *Am J Orthod Dentofacial Orthop* 2006; **129**: 195–204.
- Bondemark L. Does two years nocternal treatment with a mandibular advancement splint in adult patients with

OSAS cause a change in the posture of the mandible? Am J Orthod Dentofacial Orthop 1999; **116:** 621–628.

 Geoqheqarr F, Ahrens A, McGrath C, Hagg U. An evaluation of two different mandibular advancement devices on craniofacial characteristics and upper airway dimensions of Chinese adult obstructive sleep apnea patients. *Angle Orthod* 2015; 85: 962–968.

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Children's oral health

70 years on

Sir, for British Society of Paediatric Dentistry's (BSPD's) members, the NHS' 70th birthday is a time of mixed emotions. On the one hand, children's oral health has improved dramatically over the years, but on the other, children in lower socioeconomic groups are still more likely to report that poor oral health impacts on their daily lives.

Successive governments have failed to reduce inequalities in children's oral health. The statistics from NHS Digital tell a story of rampant inequality, mostly, but not exclusively, in the North. Education and inspiration are essential to motivate our young patients to look after their oral hygiene. How do we access the most deprived and hard to reach? This is the question also facing the hugely successful Childsmile (Scotland) and Designed to Smile (Wales) programmes, and hopefully being addressed in part by the Starting Well scheme in England. We need to look at reaching our patients and their parents/carers in other ways. When only 40% of children were seen by an NHS dentist last year we have to identify other effective methods of engagement. As more young people own mobile phones, there are opportunities for us to reach out on social media and via apps. The means of communication is there, all it needs is creativity and a will to engage in a language or style that the young will respond to.

And we must all work together – sharing ideas and information. BSPD has produced resources to support Dental Check by One and is ready to engage with everyone working with or producing information for young families. Our gift to the NHS? Our commitment to continue to work to improve children's oral health and build collaborations too. Children's oral health is everyone's business.

> C. Stevens, BSPD President DOI: 10.1038/sj.bdj.2018.598