LETTERS TO THE EDITOR

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CASE REPORT

Palatal mucosal necrosis after administration of a palatal infiltration

Sir, I write this letter to raise awareness of a rare complication involving local anaesthetic that presented in our maxillofacial department.

On the 3 October 2014 a 44-year-old female, with a medical history of glaucoma and gastric reflux, attended her regular dental practice to have an extraction of the maxillary second premolar on the right side under local anaesthetic and intravenous sedation in what was believed to be a routine procedure. In total, 0.5 ml of lidocaine 2% with adrenaline 1:80,000 was administered as a palatal infiltration and 1.7 ml of the same anaesthetic injected as a buccal infiltration. The treatment was uneventful and the patient was sent home with post-operative instructions. Later that evening, the patient developed a blister in the region of the palatal infiltration site.

Fig. 1 Palatal mucosal necrosis

The patient visited the dentist for an emergency appointment the following day and was prescribed 500 mg amoxicillin tablets for 5 days and her clinical symptoms were monitored for two weeks. With no improvement, and the blister transitioning into an ulcer-like lesion of approximately 20 mm by 12 mm, the patient was urgently referred to Basildon Hospital's maxillofacial department on the 28 October 2014.

The patient was seen and diagnosed with palatal mucosal necrosis (Fig. 1) which would be managed conservatively with regular review appointments. A further two appointments were arranged for the patient on the 9 December 2014 and 15 January 2015, which highlighted healing of the ulcer and the presence of an erythematous area which was initially 20 mm by 20 mm and decreased to a size that was insignificant. However, the patient was experiencing severe post-traumatic neuralgia which developed at the site of the ulcer during the healing process and was prescribed 10 mg nortriptyline. The patient reported that the whole experience had left her stressed, affecting her personal and social life and has been advised to have counselling to treat this matter.

The palate has a rich blood supply via the greater and lesser palatal arteries which

CONTRACTS

Junior doctors and the NHS

Sir, the proposed new contract for junior doctors is an issue which has implications not just to doctors but also to dentists as well. The contract, which Jeremy Hunt (Secretary of State for Health) is intending to impose from August 2016 will force junior doctors to work anywhere from 7 am – 10 pm Monday to Saturday. This previously stood at 7 am – 7 pm Monday to Friday with time worked outside of these hours paid at a 'banded' rate. The change means the hours classified as 'normal' will increase by 50% and therefore reduce the amount of 'banded' extra pay given for working unsociable hours by up to 30% for doctors (depending upon the speciality). To clarify – the term junior doctor is a loose term. It can be used for anyone fresh from medical school (Foundation Doctor Year 1) to a Senior Speciality Trainee (ST7+), a difference of about 9 years.

An oral & maxillofacial surgery trainee must obtain both a medical and dental degree. Fees are currently at £9,000 a year for university level education and with a minimum of 8 years in university (5 years for dentistry and 3 for medicine or vice versa) the least a student must fund is ≥£47,000 (including available study bursaries – IF awarded).

Furthermore, the second degree does not qualify for a student loan and therefore the fees must be paid for upfront increasing the financial burden. The fees don't stop there, the personal cost of training for compulsory courses and post graduate qualifications is rising and placing further strain.[1] Another area of concern is that of the locum pay cap. The Department of Health wishes to cap what is paid to locums, which is considered to be the financial lifeline of any 'second-degree' student. Pay protection is another matter of concern that is likely to be phased out with the new 'junior doctor' contract.

This allows a trainee who has spent sometimes 2-6 years post primary dental/medical qualification working as a speciality doctor/dentist or otherwise to continue on this level of pay as a foundation doctor, rather than face a massive pay cut of up to 40% and fall to the bottom of the pay pyramid. All of this with annual retention fees causes an immense financial strain on the new crop of oral and maxillofacial trainees.

It is with a heavy heart that, as a third year medical student, I seriously consider my position in a second degree at the mercy of the Department of Health and its decisions. This will push the speciality to the brink and plunge me deeper in debt – which may force me to leave training. Most trainees have their origin in dentistry and with the British Dental Association (BDA). As an organisation the BDA must join the growing body of professional organisations and voice concern over the new contract, as we trainees are facing a questionable and bleak future.

B. E. S. Dawoud
Dentally Qualified
3rd Year Medical Student, by email

1. Giddings C. The effects of rising costs on surgical training. The Associations of Surgeons in Training, 2011. Available online at http://www.asit.org/news/costofsurgicaltraining (accessed December 2015).

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will play a role in wound healing and sustaining metabolism by providing oxygen and nutrients.

An increase in pressure may provide an explanation into the aetiology of such an event, or the absence of a good supply, via vasoconstriction, deprives the tissue of its necessary sustenance resulting in necrosis of the overlying epithelium. The contraction of smooth muscle within the arterial wall during vasoconstriction may lead to transient ischemia of structures distally to the injection site leading to tissue necrosis.

If such symptoms do present under your care, a referral to the local maxillofacial department is justified for a second opinion. Regular reviews and reassurance is the treatment of choice, with photographs being an integral part of record keeping for medico-legal reasons.

N. Gogna, S. Hussain, S. Al-Rawi
Basildon

1. Jain V, Triveni M G, Tarun Kumar A B, Mehta D S. Role of platelet-rich-fibrin in enhancing palatal wound healing after free graft. *Contemp Clin Dent* 2012; **3:** S240-243.
2. Berkovitz B, Moxham B. *Head and Neck Anatomy: A Clinical Reference.* 1st ed. Martin Dunitz, 2002.

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IMPLANTOLOGY

The real McCoy

Sir, we enjoyed your editorial entitled *How long will implants last?* (*BDJ* 2015; **219:** 243) in which you compare the massive upsurge in implant dentistry to the boom in frozen food in the 1960s.

The comparison is absolutely spot on, and could go further too. Decades later, everybody can have frozen food; yet we now rejoice in being served fresh organic food, eschewing frozen food where possible. Frozen food only comes into its own when fresh food isn't available. So too with dental implants. An amazing tool; which should be used with discernment and caution, but only when the real McCoy is not available or cannot be maintained.

A. Dawood and S. Tanner, London
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RADIOGRAPHY

Left or right? Plate orientation

Sir, a 24-year-old female attended my surgery for a routine examination. Aside from stained fissures her dentition was unrestored and symmetrical. Twelve months earlier a pair of digital bitewing radiographs had been taken but not labelled. Both radiographs were displayed as if they were from the same side. As a foundation dentist being observed by the training programme director, I was simply asked to identify and orientate them correctly...

Photostimulable phosphor storage plates are commonly used as image receptors in digital radiography. The plates can be seen as having two sides; an 'imaging' side containing a layer of barium fluorohalide phosphor and a 'reverse' side being a flexible plastic backed support. For cross infection control purposes intraoral plates are inserted into protective barrier envelopes. These also have two distinct sides with contrasting materials or patterns used.[1]

Use of phosphor plates can lead to a dilemma. When taking a right-sided bitewing radiograph, if the 'imaging' side of the plate is placed towards the tube head, the resulting image will correctly orientate teeth on the right side. However if the 'imaging' side were to face away from the tube head, an image is still recorded but orientated as if it was taken on the left side (opposite). In both instances though, once the plates are scanned the 'mark' or 'dot' will remain in the same position. When looking at a scanned image, no definitive method exists to determine when a plate has been exposed with the 'imaging' side away from the X-ray tube head.

Following on from an awkward discussion with my training programme director, I undertook an audit which identified further similar cases within our practice. On addressing the issue at a peer review meeting, the following leaning points were identified and an action plan agreed:

- All phosphor plates within the practice should be labelled
- Training to ensure all phosphor plates are correctly orientated within the barrier envelopes
- Training to ensure all operators are orientating the phosphor plates correctly within the patient's mouth; ie the text printed on the back of the phosphor plate ('reverse' side) is closest to the tongue
- All processed radiographs should be correctly orientated and only rotated on the software if required
- No 'flipping' of processed radiographs should be required
- To state the side of the mouth and teeth present on the radiograph
- A complete report for all radiographs.

A significant concern raised by our training programme director was that three other dental foundation training practices had the same problem. This was 'without looking that hard'. Potentially, this is a national issue and not one limited to a couple of practices. Ultimately, non-labelled and non-orientated digital radiographs contradict IR(ME)R 2000 regulations; are of potential limited value as a baseline index; and pose a risk for wrong side surgery.

G. Fenton, by email

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IN PRACTICE

Impact on the airway

Sir, I read with interest the letter from D. Singh (*Br Dent J* 2015; **218:** 368) regarding the reduction in oropharyngeal airway after orthodontic treatment involving extraction of premolars and retraction of incisor segments. It would also seem that headgear which restricts maxillary growth has a similar effect.[1,2] Conversely, functional appliance therapy would appear to have the opposite effect enhancing the oropharyngeal airway.[3-5] As there seems to be a relationship between oropharyngeal size and obstructive sleep apnea[6-8] it would favour the functional approach to orthodontic treatment.

M. J. Trenouth, by email

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8. Pracharktam N, Nelson S, Hans M G *et al.* Cephalometric assessment in obstructive sleep apnea. *Am J Orthod Dentofacial Orthop* 1996; **109:** 410–419.

DOI:10.10.38/sj.bdj.2015.936