

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.

DOI:10.10.38/sj.bdj.2015.933

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
DOI:10.10.38/sj.bdj.2015.934

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

1. Whaites, E. *Essentials of Dental Radiography and Radiology*. 4th ed. Churchill Livingstone Elsevier, 2006.

DOI:10.10.38/sj.bdj.2015.935

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 apnea⁶⁻⁸ it would favour the functional approach to orthodontic treatment.

M. J. Trenouth, by email

1. Hiyama S H, Ono T, Ishiwata Y, Kuroda T. Changes in mandibular position and upper airway Dimension by wearing cervical headgear during sleep. *Am J Orthod Dentofacial Orthop* 2001; **120**: 160-168.
2. Godt A, Koos B, Hagen H, Goz G. Changes in upper airway width associated with Class II treatments (headgear vs activator) and different growth patterns. *Angle Orthod* 2001; **81**: 440-446.
3. Jena A K, Singh S P, Utreja A K. Effectiveness of twin-block and mandibular protraction appliance-IV in the improvement of pharyngeal airway passage dimensions in Class II malocclusion subjects with a retrognathic mandible. *Angle Orthod* 2013; **83**: 728-734.
4. Ghodke S, Utreja A K, Singh S P, Jena A K. Effects of twin-block appliance on the anatomy of pharyngeal airway passage (PAP) in class II malocclusion subjects. *Prog Orthod* 2014; **15**: 68-76.
5. Iwasaki T, Takemoto Y, Inada E, Sato H, Saitoh I, Kakuno E, Kanomi R, Yamasaki Y. Three-dimensional cone-beam computed tomography analysis of enlargement of the pharyngeal airway by the Herbst appliance. *Am J Orthod Dentofacial Orthop* 2014; **146**: 776-785.
6. Lyberg T, Krogsstad O, Djupesland G. Cephalometric analysis in patients with obstructive sleep apnea syndrome: skeletal morphology. *J Laryngol Otol* 1989; **103**: 287-292.
7. vp apnea syndrome: A complex disorder of the upper airway. *Otolaryngol Clin North Am* 1990; **23**: 593-608.
8. Prachartam 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