RESEARCH INSIGHTS

Other journals in brief

A selection of abstracts of clinically relevant papers from other journals. The abstracts on this page have been chosen and edited by John R. Radford.

Oral medicine

Factors associated with geographic tongue and fissured tongue Dafar A, Çevik-Aras H et al. Acta Odontol Scand 2016; **74:** 210–216

Despite this study being of cross-sectional design, these investigators concur with others in suggesting that some subjects with geographic tongue go on to develop fissured tongue.

But then as stated in the introduction of the article, the investigators cite others who have reported that the causes of geographic tongue and fissured tongue differ; for example, stress and fungal infections have been linked with geographic tongue, whereas psoriasis and orofacial granulomatosis have been linked with a fissured tongue. In this cross-sectional study carried out in Sweden, 6,448 patients were screened for oral mucosal lesions. Data collected from patients with geographic or fissured tongue were compared with controls in both this setting and other patients with similar oral mucosal perturbations seen in secondary care. The key finding was that both anti-hypertensive medications and consumption of Swedish snus (moist powder tobacco, placed under the upper lip for extended periods, the sale of which is illegal in the EU, except Sweden) were associated with geographic tongue. But there was an inverse relationship for both geographic tongue and fissured tongue with cigarette smoking. Not surprisingly, those patients seen on specialist clinics, were experiencing more severe symptoms such as soreness or burning.

DOI: 10.1038/sj.bdj.2016.491

Showjumping

Dental trauma in showjumping – a trinational study between Switzerland, France and Germany

Gass M, Kühl S et al. Dent Traumatol 2016; 32: 174-179

Most dental injuries, in contrast to injuries elsewhere on the body, occur when 'mucking out'.

The aim of this study was 1) to put some detail on the observation that showjumping results in a high risk of injury to riders, and 2) to propose strategies to minimise such injuries. Interviews were carried out on 608 riders. Some one third of them had witnessed tooth trauma with 15% having sustained trauma to their own teeth. Only three of the respondents wore a mouth guard despite over three quarters being familiar with their use. Reasons for not wearing a mouthguard were that they were considered of doubtful benefit and that they were poorly tolerated. All competitors wore a helmet and some, particularly amateurs, wore a 'back' (body) protector. The authors argue that the use of mouth guards during showjumping should be mandated, as with the wearing of helmets, by the sport's governing bodies. Injuries to horses were not mentioned. The syntax of this paper is sub-optimal.

DOI: 10.1038/sj.bdj.2016.493

Avoiding a 'soggy bottom'

Depth of cure of contemporary bulk-fill resin-based composites Yap AU, Pandya M *et al. Dent Mater J* 2016; **35:** 503–510

A depth of cure of 4 mm was not achieved in any of the bulk-fill resin composites.

The disadvantages of using incremental filling techniques include the incorporation of voids or contamination between the layers. To mitigate these, bulk-fill resin composites have been introduced with manufacturers claiming that these materials have both low polymerisation shrinkage and depths of cure to 4 mm. The aim of this *in vitro* study was to compare the depth of cure of five packable bulk-fill composites, some of which were flowable, with two standard composites. As the investigators found the depth of cure of 4 mm was not achieved with any of the bulk-fill composites, they urged incremental filling with 2.5 to 3 mm thicknesses when using these materials. Differences in the results of this study and some others that reported 4 mm curing depths, could be as a consequence of different methods used to test hardness, specimen design or the colour of the mould in which the specimen was cured.

DOI: 10.1038/sj.bdj.2016.492

Counterfeit dental equipment

Counterfeit and non-compliant dental devices: the dangers and how to mitigate them

Proffitt E. Dent Update 2016; 43: 307-312

Caveat emptor ('Let the buyer beware').

The author urges all purchasers to '... buy only from reputable suppliers', as counterfeiters are not only using bespoke packaging and ostensibly authentic documentation, but also CE marks, holographic labels and barcodes. A recent GDC outcome was cited (see www.gdc-uk.org/.../ Determinations%202016/TAHIR%20PCC%20Determination%20 [Accessed 19.06.2016]); conditions were imposed on the registrant whose fitness to practise was found impaired as a consequence of several failings, including the purchasing of equipment (from eBay) that was counterfeit. One such piece of equipment, a counterfeit NSK hand piece (from GDC determination), although advertised with a CE mark, 'fell apart' whilst being used on a patient. In this paper, the author reports that a range of counterfeit dental equipment is being peddled such as burs, endodontic instruments, ineffectual curing lights and others that gave an electric shock, and hand-held X-ray machines that contained cheap kitchen foil instead of lead. In the above GDC enquiry, of note the Committee accepted the submission by counsel for the registrant that 'these regulations (Medical Devices Regulations 2002) did not apply to the end-user, and were instead regulations that needed to be adhered to by manufacturers and suppliers...' DOI: 10.1038/sj.bdj.2016.494