

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.

DENTAL TRAUMA – PACIFIERS?

Clarifying the effect of behavioral and clinical factors on traumatic dental injuries in childhood: a hierarchical approach

Kramer PF, Feldens EG *et al.* *Dent Traumatol* 2015; **31**: 177–183

An increased overjet was the most important factor associated with dental trauma to deciduous teeth.

The aims of this study were to determine the prevalence of traumatic injuries to deciduous teeth in children, and to identify causative factors in order to minimise such injuries. The prevalence of traumatic injuries in deciduous teeth was 13.3%. The investigators state the probability of this occurring was 50% higher in children who used a pacifier (PR: 1.50; 95% CI: 1.08–2.10), although of note ‘threefold higher in children with overjet >5 mm (PR: 2.73; 95% CI: 1.77–4.20) compared with children with overjet ≤2 mm,’ where PR is prevalence ratio (prevalence of dental trauma with >5 mm overjet, compared to the group with <2 mm). Poisson regression analysis revealed an increased overjet was the most important factor associated with dental trauma. Despite this, the investigators argue ‘early counsel(l)ing on pacifier use’ could minimise such injuries. In this cross-sectional study, the overjet was measured and questionnaire data gathered on 1,316 children aged 0–5 years old, living in Brazil.

DOI: 10.1038/sj.bdj.2016.258

BIDIRECTIONAL RELATIONSHIP

Oro-facial pain and nutrition: a forgotten relationship?

Durham J, Touger-Decker R *et al.* *J Oral Rehabil* 2015; **42**: 75–80

Those suffering from temporomandibular disorders should not be told merely to ‘eat a soft diet’, as this may have a poor nutritional value.

‘The mouth, the mirror of the body’; a paradigm that is cited by august bodies such as WHO, explored in learned journals and heralded by the popular press. An aspect of this relationship, which is not commonly examined, is that chronic oro-facial pain may affect nutritional status. Acute dental infections only cause brief perturbations in dietary intake, yet chronic oro-facial pain such as TMDs may have a nutritional effect on the patient. Indeed antioxidant vitamins, minerals and other phytonutrients may have a role in attenuating chronic pain. These nutrients are present in vegetables, wholegrain foods and dietary fibre. But conversely, food temperature may trigger trigeminal neuralgia, and caffeine or tyramine could initiate migraine. Although disputed, the authors state that folic acid deficiency may be associated with burning mouth syndrome. Despite the fact that the bidirectional relationship between nutrition and chronic orofacial pain ‘remains undetermined’, the practitioner should counsel the patient with chronic pain to eat a healthy diet <http://www.nhs.uk/Livewell/Goodfood/Pages/eatwell-plate.aspx>.

DOI: 10.1038/sj.bdj.2016.259

MOUTHGUARDS

Suitable design of mouthguard for sports-active person with spaced dentition

Chowdhury RU, Churei H *et al.* *Dental Traumatol* 2015; **31**: 238–242

In those with spaced dentitions, the mouthguard should fill the interdental spaces.

There are three types of mouthguard: stock, boil-and-bite and custom-made. The custom-made mouthguard is considered to afford superior protection to the dento-alveolar complex. This paper describes a variation of the custom-made mouthguard; interdental spaces are filled for those with tooth spacing. The mouthguard was constructed from two layers of polyolyfin sheet. The investigators suggest this material has superior properties to ethylene vinyl acetate. The first 2 mm thick layer is vacuum-formed on the cast, and then a further 3 mm layer is thermoformed on the first layer. The investigators used an *in vitro* model to determine if this design of mouthguard affords greater protection to the dento-alveolar structures. Using an impact testing machine, the efficacy of the shock absorbing capacities of both designs of mouthguards were measured using strain gauges on resin casts. Mouthguards that filled the interdental spaces were superior. The grammar in this paper should not detract from this finding and possible clinical application.

DOI: 10.1038/sj.bdj.2016.260

ACUPUNCTURE

Unanticipated insights into biomedicine from the study of acupuncture

MacPherson H, Hammerschlag R *et al.* *J Altern Complement Med* 2016; **22**: 101–107

The doctor, or dentist, as a ‘walking placebo’.

Interventions for one condition have yielded treatment modalities for others. A dental example of such serendipity, applying to implants, are the potential benefits of platform switching; a manufacturing company experienced a delay in the production of the prosthetic component with, as a consequence, a dimensional mismatch between the components (*Int J Periodont Restor Dent* 2006; **26**: 9–17). This literature review gives five examples of how acupuncture has afforded insights into the understanding of treatment approaches discovered by chance. In this abstract only one example will be described. Acupuncture has enhanced the understanding of the placebo effect following the use of a modified acupuncture needle as a sham device for patients with irritable bowel syndrome. ‘Escalating “doses” of placebo’ by using 1) observation alone, 2) observation plus sham acupuncture, and then 3) observation plus sham acupuncture and positive patient-provider relationship, has been shown to increase symptom relief. Acupuncture is used in dentistry, although some consider it fringe.

DOI: 10.1038/sj.bdj.2016.261