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.

TMJ IMAGING

Imaging diagnosis of the temporomandibular joint: critical review of indications and new perspectives

de Senna BR, dos Santos Silva VK *et al.* *Oral Radiol* 2009; **25**: 86–98.

A TMJ image should only be taken if it 'influence(s) diagnosis and treatment planning'

Volumetric computed tomography (cone beam) produces similar images to CT but the exposure of radiation to the patient is reduced dramatically. However this, and other conventional radiographic techniques, do not 'define the position of the articular disk'. An MRI image 'can detect some abnormalities (in the TMJ) not seen with other imaging methods' and not revealed by clinical examination. The authors state that MRI is the gold standard for TMJ imaging. Ultrasound (US) has advantages over MRI in that it can provide dynamic images. However, US does not identify condylar abnormalities. Rapid prototyping, is a technique that has only fairly recently been applied to dentistry. It involves the construction of anatomical models from images generated by any of the above methods and can be used when planning surgery of the TMJ.

DOI: 10.1038/sj.bdj.2010.176

SOFT TISSUE DRAPE

Facial soft tissue: the alpha and omega of treatment planning in orthognathic surgery

McCollum AGM, Evans WG. *Semin Orthod* 2009; **15**: 196–216

The preoperative over jet (or reverse over jet) is established with orthodontic treatment.

The traditional stages in planning orthognathic surgery have now been reversed in that 'the most favourable possible contours of the entire soft-tissue facial profile' should be determined first. It is emphasised that pre-surgical assessment of soft tissues should be made when the patient is standing up and not reclining in a dental chair. This paper gives numerous measurements/dimensions that, when taken as a whole, are indicative of attractiveness and harmony. The authors assert that at the heart of surgical planning is the appreciation that the orthodontist is the 'custodian' of the all-important preoperative over jet (or reverse over jet). The application of these planning regimens are demonstrated on three patients. However, changes in facial expression make it difficult to compare the pre-operative and post-operative outcomes.

DOI: 10.1038/sj.bdj.2010.177

OCCUPATIONAL HEALTH

Occupational changes in manual tactile sensibility of the dentist

Shahbazian M, Bertrand P *et al.* *J Oral Rehab* 2009; **36**: 880–886

'vibrating instruments...have a negative influence on the manual tactile sensibility of the dentist'

A light-touch sensation test, a two-point discrimination test and a thermal sensation test were carried out on the thumb and the index finger of the working and non-working hands of 50 participants. These comprised 20 dentists who had practised for more than 25 years, a control group of 20 non-dentists and 10 other dentists with only 1–5 years work experience. The investigators looked for differences using multiple t-tests. With the light-touch sensation test only, significant differences were shown between the working and non-working hand, of dentists who had worked for more than 25 years. A similar difference was shown between dentists and non-dentists. In addition, there was no reduction in manual tactile sensitivity in young dentists.

DOI: 10.1038/sj.bdj.2010.178

ADHD

Caries experience and oral hygiene status of children suffering from attention deficit hyperactivity disorder

Chandra P, Anandakrishna L *et al.* *J Clin Pediatr Dent* 2009; **34**: 25–30

Those children with attention deficit hyperactivity disorder (ADHD) had significantly higher decayed, indicated for extraction and filled primary teeth (defs).

A visual examination for dental caries was carried out and oral hygiene status was determined in 40, 6–14-year-old children with ADHD and 40 matched control subjects without ADHD. All participants lived in Bangalore, India. Those children with ADHD had significantly higher defs scores for primary teeth but there was no difference for the decayed, missing, filled surface index for permanent teeth. The frequency of tooth brushing in those subjects with ADHD was significantly less than the controls and this was reflected by higher plaque scores. Also, those with ADHD consumed more sugary foods. The authors touch on the vexed question as to whether or not 'sugar consumption is responsible for hyperactivity or hyperactivity leads to high consumption of sugar'.

DOI: 10.1038/sj.bdj.2010.179