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.

PATIENT-CENTERED OUTCOMES

An approach to define clinical significance in prosthodontics

John MT, Reißmann DR *et al. J Prosthodont* 2009; **18:** 455-460

What is the smallest improvement in prosthodontic treatment that a patient perceives is beneficial?

Patient-centred outcomes are increasingly being used to replace traditional measures to assess the efficacy of treatment. The minimal important difference (MID) is the smallest improvement that a patient perceives as beneficial, 'in the absence of troublesome side effects and excessive cost'. This study determined the MID on 224 consecutive patients following the provision of fixed and removable prosthodontics. For this treatment modality, the MID was the change in the scores for the German version of Oral Health Impact Profile (OHIP-G) such that the patients reported 'improved a little' (in the Abstract, both this descriptor and 'a 'little improvement' and in the Results 'a little better'). The MID for prosthodontic treatment was 6 OHIP-G units. The authors state that 'determining the MID for prosthodontic procedures is an important first step in determining economic utility values... as a way of informing wider health policy'.

DOI: 10.1038/sj.bdj.2009.723

ZIRCONIA BRIDGES

Clinical performance of extended zirconia frameworks for fixed dental prostheses: two-year results

Schmitter M, K. Mussotter K *et al. J Oral Rehabil* 2009; **36:** 610-615

Complications with zirconia framework bridges after 2 years only.

In this prospective cohort study, 30 full dental prostheses (FDPs) with a mean span of 40.33 mm and connector dimensions of *circa* 9 mm^2 were examined at baseline and after 2 years. There were 5 failures. In one the connector fractured, in another the ceramic 'chipped (cohesive failure of the veneering ceramic)', in one the abutment tooth had to be treated endodontically, and in two others the FDPs had to be recemented. The patients rated the shape and shade of the restorations highly although interestingly more so than the dentists. In the Discussion, the authors cite others who reported that only 3.2% of bridges with a metal framework fractured after 10 years. They conclude, somewhat optimistically, that 'Two year clinical results of extended zirconia based FDPs with 9 mm^2 connectors are promising'.

DOI: 10.1038/sj.bdj.2009.724

IMPLANTS – LIFE-THREATENING BLEEDS

Anatomic assessment of the anterior mandible and relative hemorrhage risk in implant dentistry: a cadaveric study

Rosano G, Taschieri S *et al. Clin Oral Implants Res* 2009; **20:** 791-795

Caution when placing implants in the anterior region of the mandible.

In the first part of this study, the investigators examined 60 dry mandibles. All had 'at least one lingual foramen at the midline above the genial spines'. In the second part of the study, they carried out macro-anatomical dissection on a further 20 specimens, identifying the lingual arteries following injection of liquid latex mixed with red India ink. In 19 of these, they reported a 'clear vascular perforating branch entering the superior spinal genial foramina as a single vessel' from a sublingual anastomosis. The authors cite 16 incidents of life-threatening bleeds associated with preparation of the implant site, particularly when the drilling depth was 15 mm. In conclusion, they urge 'careful evaluation... before using implants longer than 13 mm in the anterior mandible' and not to place implants at the midline.

DOI: 10.1038/sj.bdj.2009.725

DISTRACTION OSTEOGENESIS

Distraction osteogenesis in the treatment of dentofacial deformities

Super S. *Alpha Omegan* 2009; **102:** 68-73

An alternative to orthognathic surgery?

Distraction osteogenesis (DO) promotes the formation of new bone and its use may be indicated particularly where there is scarring and unfavourable muscular forces. Since the introduction of intraoral distractors, the applications for DO have increased 'beyond those in jaw and craniofacial abnormalities to include its use in the treatment of cleft palate patients, condylar regeneration, discontinuity defects of the mandible, and for ridge augmentation before the placement of implants'. The author illustrates an improved facial profile following the use of a customised intraoral distractor for a patient with clefting. This patient had previously received orthognathic surgery that had relapsed. The author also shows the use of DO for other patients with a range of deformities. For each patient the outcome is satisfactory. Based on these case studies, DO using intraoral distractors would appear an exciting treatment approach.

DOI: 10.1038/sj.bdj.2009.726