

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.

DIRECT PULP CAPPING

Histological, ultrastructural and quantitative investigations on the response of healthy human pulps to experimental capping with mineral trioxide aggregate: a randomized controlled trial

Nair PNR, Duncan HF, *et al.* *Int Endod J* 2008; **41**: 128-150

Mineral trioxide aggregate may have a role as a pulp capping agent.

This study was carried out on 21 subjects who had third molar teeth scheduled for extraction. The pulps of these teeth were exposed, irrigated with a 1% solution of sodium hypochlorite before pulp capping with either MTA or Dycal[®] as a control. Teeth were extracted 1 week, 4 weeks and 3 months after treatment. Specimens were prepared for light and electron microscopy. Two teeth in four subjects were tested with both materials at 1 week, three subjects at 1 month and three subjects at 3 months. The other subjects only received either the test or control material. There was no difference in thickness of the dentine bridges between the two treatment modalities, although MTA had a more favourable outcome with respect to the 'relative length of the (dentine) bridge'. Pulps that were capped with MTA were associated with less pulpal inflammation.

DOI: 10.1038/sj.bdj.2008.1038

TREATMENT OF CRACKED TEETH

Seven-year clinical evaluation of painful cracked teeth restored with a direct composite restoration

Opdam NJM, Roeters JJM *et al.* *J Endod* 2008; **34**: 808-811

No clear treatment approaches for the survival of cracked teeth.

The aim of this practice-based study, carried out by one operator, was to determine the outcome of restoring cracked teeth with either a directly-placed bonded resin composite restoration with or without cuspal coverage. Some of the data was obtained by telephone interview. Forty-one patients who had teeth with cracked cusps were randomly assigned to one of two groups. At the end of the 7-year observation period, regardless of restoration, a quarter of teeth still demonstrated increased sensitivity. Survival analysis showed that none of the cuspal coverage restorations had failed although those without cuspal coverage had an annual failure rate of 6% ($P = 0.008$ in body of the text, 0.009 in the abstract). However, when looking at tooth survival and pulp vitality, there was no difference between the different treatment approaches.

DOI: 10.1038/sj.bdj.2008.1039

BISPHOSPHONATE OSTEONECROSIS

Nonexposed bisphosphonate-related osteonecrosis of the jaws: another clinical variant?

Junquera L, Gallego L. *J Oral Maxillofac Surg* 2008; **66**: 1516-1517

Does bone have to be exposed in bisphosphate necrosis of the jaws?

Based on two case-histories, the authors ask if they have identified a variant of bisphosphonate-related osteonecrosis of the jaws (BRONJ). In the first case, they describe a patient who received bisphosphonate therapy for multiple myeloma in 2004. The remaining premolar teeth had been extracted in early 2006, with the authors claiming that no bone had been exposed. Pain and swelling occurred 4 months later. As medical therapy with antimicrobials and antiseptic mouthwashes did not bring about healing, 'minimal sequestrectomy' was undertaken and that brought about successful resolution. In the second case, a patient presented with pain and swelling of her upper anterior sextant following monthly intravenous bisphosphonate therapy for metastatic disease for about one year. No exposed bone was observed.

DOI: 10.1038/sj.bdj.2008.1040

CURING LIGHTS

Should my new curing light be an LED?

Antonson SA, Antonson DE *et al.* *Oper Dent* 2008; **33-34**: 400-407

All 'new-generation' LED curing lights meet recommended specifications.

Using the self-explanatory 'scrape test method', the resin composite curing performances of ten 'new generation' LED curing lights were compared with that of a high-powered halogen curing light unit. Each light was allowed to cool down completely between tests. There were no differences in curing performances for the majority of the units at 40 seconds of curing, although at 10 and 20 seconds only, some units did better than others. However, all LEDs were superior to the halogen light.

The authors report the FLASH-lite 1401 performed significant better than the other units tested at 10 and 20 second cures. In addition, in a separate experiment, the performance of this unit did not appear to degrade unacceptably after consecutive cycles. It should be emphasised however, that all the light units that were tested had an acceptable level of polymerisation after 20 seconds of curing time when benchmarked against ANSI/ADA Specification No 27.

DOI: 10.1038/sj.bdj.2008.1041