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.

LATEX ALLERGY

Latex allergy and filaggrin null mutations

Carlsen BC, Meldgaard M *et al. J Dent* 2011; **39**: 128–132

Unexpectedly, there was no association between latex allergy and filaggrin mutations.

Filaggrin is a skin protein which binds together keratin fibres. Those with mutations in the filaggrin gene do not produce this protein and, as a consequence, have an increased risk of allergic Type I reactions such as atopic dermatitis. In this study, 20 dental professionals who were latex allergic and a control group of 24 non-latex allergic individuals were genotyped. Surprisingly, there was no association between latex allergy and filaggrin mutations ($p = 0.24$). Explanations for this could be that sensitisation had occurred through the respiratory organs and not by direct skin contact. Alternatively, the samples were not representative in that those who had previously suffered from skin problems had stopped working, or those who had experienced latex allergy had changed their 'glove practices'.

DOI: 10.1038/sj.bdj.2011.455

CPP-ACP

The incorporation of casein phosphopeptide–amorphous calcium phosphate into a glass ionomer cement

Al Zraikat H, Palamara JEA *et al. Dent Mater* 2011; **27**: 235–243

Enhancing the properties of glass ionomer cement.

The aim of this laboratory-based study was to examine if the characteristics of a conventional glass ionomer cement (GIC – Fuji VII) could be improved by adding casein phosphopeptide–amorphous calcium phosphate (CPP–ACP). Underpinning this study is that ACP is a 'precursor to hydroxyapatite' and CPP–ACP release both calcium and phosphate ions. The investigators found that demineralisation of enamel adjacent to cavities restored with GIC incorporating 3 or 5% CPP–ACP was significantly less compared with those restored with a GIC control and a resin composite control (latter specimens could not be analysed due to the severe demineralisation). Ion release studies, under acidic conditions, showed there was increased calcium and inorganic phosphate but decreased fluoride release from GIC + CPP–ACP discs. Incorporating up to 5% CPP–ACP decreased the strength of GIC and prolonged its setting time, although these properties were within the ISO limits.

DOI: 10.1038/sj.bdj.2011.456

CPP-ACP, CPP-ACFP AND NovaMin®

Preventing erosion with novel agents

Wanga X, Megert B *et al. J Dent* 2011; **39**: 163–170

'...no protection when the novel agents tested were applied either before or after the erosive challenge.'

For over 50 years now, milk products have been tested as potential anticariogenic agents. When considering erosion, it is equivocal as to the efficacy of GC Tooth Mousse. This 'water-based creme' contains 10% Recaldent™ (CPP–ACP). In this *in vitro* study, the investigators measured surface nanohardness of enamel specimens before and after erosive challenge, in the presence of novel test agents. The experimental protocol was 'chosen to circumvent some of the (methodological) problems' that have been used by others. When compared with controls, neither GC Tooth Mousse, GC MI Paste Plus (10% Recaldent™ combined with 900 ppm fluoride: CPP–ACFP), nor 7.5% w/w NovaMin® showed protection before, or repair after, the erosive challenge. NovaMin® (calcium sodium phosphosilicate) is a 'bioactive material'. It is an ingredient of Sensodyne® Repair and Protect.

DOI: 10.1038/sj.bdj.2011.457

DOES LOW-QUALITY EVIDENCE GIVE RISE TO WEAK RECOMMENDATIONS?

How strong is the evidence for the need to restore posterior bounded edentulous spaces in adults? Grading the quality of evidence and the strength of recommendations

Faggion CM Jr, Giannakopoulos NN *et al. J Dent* 2011; **39**: 108–116

Unless periodontally involved, only a proportion of unopposed teeth over-erupt and generally less than 2 mm.

Are there untoward consequences when it is decided not to restore a bounded edentulous saddle (BES)? A systematic review was carried out examining only if 1) unopposed teeth overerupt and 2) teeth drift into the BES. Using the well established GRADE system (weighing-up all variables in a 'shared decision-making process'), the authors found that the 'quality of evidence was... very low.' What studies they did find showed that unopposed teeth did not consistently overerupt, only one study reported that teeth had drifted more than 2 mm into the saddle area and those tooth movements that did occur were in younger subjects. Only weak recommendations can be made as to the merits or otherwise of replacing the missing units in a bounded edentulous saddle.

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