

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.

CELLULAR TOXICITY

Influence of *S. mutans* on base-metal dental casting alloy toxicity

McGinley EL, Dowling AH *et al. J Dent Res* 2013; **92**: 92–97

'cause for concern...especially following prosthodontic or orthodontic treatment with base-metal dental casting alloys.'

It is stated that nickel is the most allergenic metal, although many others also induce such a response. There are continuing concerns that the 'protective' oxide layer formed by chromium with nickel-containing appliances could be disrupted by the low pH encountered in the mouth. In this *in vitro* study, it was observed that Ni-alloy discs incubated with stationary-phase *S. mutans*, leached with time increasing levels of Ni and Cr, when compared with untreated discs. A similar pattern was observed with Co-Cr alloy discs. The study also examined the effect of these ions on immortalised human TR146 oral keratinocytes. Viable cell counts, cell morphology, metabolic activity and inflammatory cytokine expression were disturbed. Nickel-based dental casting alloys were more toxic than Co-Cr-based dental casting alloys.

DOI: 10.1038/sj.bdj.2013.296

WRAPPING UP CHILDREN

Internal stress in children and parental attitude to dental treatment with passive restraint

Tsuchihashi N, Uehara N *et al. Pediatr Dent J* 2012; **22**: 170–177

Parents were comfortable that their children received passive restraint, but should this be an issue only for parents?

This study recruited 4-year-old patients. It compared ECG data measured on 11 who received passive restraint and 11 who were 'co-operative', when receiving dental treatment. The passive restraint comprised a net and was only used if other behavioural techniques were unsuccessful. Consent for the use of passive restraint was given by the parents. However, almost two thirds of them were unaware of this approach before the dental visit. At subsequent appointments when it was decided that passive restraint was no longer necessary, not unexpectedly, the mean sympathetic activity of the children was diminished. Although clearly these children lacked competence, there is a distinction between consent for treatment and consent for use of passive restraint by parents. Implications of Article 12 of the UN Convention on the Rights of the Child were not discussed.

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STATISTICAL VS CLINICAL SIGNIFICANCE

Radiographic evaluation of different techniques for ridge preservation after tooth extraction: a randomized controlled clinical trial

Jung RE, Philipp A *et al. J Clin Periodontol* 2013; **40**: 90–98

'...none of the techniques was able to completely preserve the alveolar ridge contour'.

The investigators measured both vertical and horizontal changes in bone dimensions following different ridge preservation techniques, 6 months after tooth extraction. Measurements were made from CBCT scans. Demineralised bovine bone mineral with 10% collagen (Bio-Oss® Collagen), regardless of covering material, gained about 1 mm vertically and lost 1 mm horizontally width. β -Tricalcium-phosphate-particles with a polylactid coating (easy-graft®) lost a worrying 2 mm vertical height and 6 mm horizontal width. For the control group (no active treatment), there was a decrease in vertical height of 0.6 mm and 3.3 mm horizontal width. There was no discussion as to whether or not the statistical significant differences identified were clinically significant.

DOI: 10.1038/sj.bdj.2013.297

GROWING OUT OF AUTISM

Optimal outcome in individuals with a history of autism

Fein D, Barton M *et al. J Child Psychol Psychiatr* 2013; **54**: 195–205

'Not impaired merely different', or is this disingenuous?

It has been reported over the past 40 years, that as many as half of individuals grow out of autistic spectrum disorder (ASD). But were they originally misdiagnosed, or were the criteria for recovery flawed? In this study, it was shown at the end of the observational periods there were no differences in 1) socialisation, 2) communication, 3) face recognition, and 4) language scores between those diagnosed with optimal outcome ASD (n = 34) and those individuals with typical development (n = 34). Nevertheless, this was not observed in those with high-functioning autism (n = 44). Uta Frith, developmental psychologist who dispelled the myth of 'refrigerator mother' as the cause of ASD, states that those with autism and their parents are 'the heroes'. Indeed, this paper implies that those parents who were 'highly involved in the children's treatment programs and in their social lives' result in optimal outcome.

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