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.

CRANBERRY JUICE – BIOFILM DISEASE

Influence of cranberry proanthocyanidins on formation of biofilms by *Streptococcus mutans* on saliva-coated apatitic surface and on dental caries development *in vivo*

Koo H, Duarte S *et al.* *Caries Res* 2010; **44**: 116–126

Extracts of cranberry juice significantly reduced caries in rats compared with the negative control, but the positive control (250 ppm of F) had a significantly greater effect.

Cranberry fruit is a uniquely source of various classes of bioactive flavonoids. Anthocyanins and proanthocyanidins (PAC) are part of this group of plant secondary metabolites and they may have a therapeutic effect against biofilm-related diseases. In this study, a highly purified and chemically defined cranberry PAC fraction significantly reduced caries when tested in a Sprague-Dawley rat model. However, those 'groups treated with 250 ppm of F (positive control) had significantly less smooth-surface caries and less severe lesions than those treated with PAC ($p < 0.05$). In a separate experiment, topical applications of PAC fractions to monocultures of *Streptococcus mutans* grown on saliva-coated hydroxyapatite discs, significantly reduced the biomass, total amount of extracellular insoluble polysaccharides and the acidogenicity of these biofilms.

DOI: 10.1038/sj.bdj.2010.790

CHECK-UPS

Why is there heterogeneity in the effect of dental checkups? Assessing cohort effect

Celeste RK, Nadanovsky P. *Community Dent Oral Epidemiol* 2010; **38**: 191–196

The authors state that patients who attended the dentist more frequently have more restorations.

The self-reported time since their last dental visit ('less than 1 year', 'from 1 to 2 years', '3 or more years' and 'never'), DMFT, untreated dental caries (DT) and MT data was obtained for the following groups of Brazilians: 15 to 19-year-olds ($n = 16,411$), 35 to 44-year-olds ($n = 13,269$) and 65 to 74-year-olds ($n = 5,300$). 'After adjusting for...(numerous confounders), estimates (effect of age, dental visits, MT and DMFT) differed only slightly'. The investigators therefore 'presented only unadjusted results'. Nevertheless, they assert that regardless of age group, those patients who attended the dentist more frequently had more restorations but fewer teeth with untreated caries.

DOI: 10.1038/sj.bdj.2010.791

HOMELESS PEOPLE

Patterns of dental service use among homeless people using a targeted service

Daly B, Newton T *et al.* *J Public Health Dent* 2010; **70**: 45–51

Almost one half of these patients returned for dental care although many failed to complete their course of treatment.

A 10% random sample of the case-notes from 2,041 homeless people, who accessed a targeted dental service from 1992 to 2001, was reviewed. The results from this study 'challenge the received view that homeless people have a low perception of felt need and are apathetic about their oral health'. When the presenting complaint of this cohort of patients had resolved, many returned for further treatment, although almost 70% of patients did not complete their course of treatment. While 'drop-in clinics' encouraged attendance, paradoxically the authors argue that this arrangement could have acted as a barrier. They suggest that mobile clinics 'might be a better model to promote continuity of care'.

DOI: 10.1038/sj.bdj.2010.792

HERPESVIRUSES

Periodontopathic bacteria and herpesviruses in chronic periodontitis

Chalabi M, Rezaie F *et al.* *Mol Oral Microbiol* 2010; **25**: 236–240

A further study demonstrating associations between herpesviruses and periodontal disease.

For more than a decade now, investigators have been exploring the possible role of herpesviruses, especially Epstein-Barr virus (EBV) and cytomegalovirus (CMV), on the initiation and progression of periodontitis. In addition, the periodontal tissues may be a major reservoir for such viruses. 'Subgingival samples were collected from 40 periodontally healthy individuals and from 40 patients with chronic periodontitis'. All patients had received care in a dental school in Iran. Multiplex and nested polymerase chain reactions were used to identify selected putative periodontopathic pathogens. *Porphyromonas gingivalis*, *Tannerella forsythia*, EBV-1 and CMV were statistically associated with probing depths ≥ 6 mm. However, *Aggregatibacter actinomycetemcomitans* and EBV-2 were not associated with any of the sites with periodontal disease. None of the above organisms were associated with probing depths ≤ 3 mm.

DOI: 10.1038/sj.bdj.2010.793