

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.

The papers summarised in this issue of the *BDJ* have been selected from those ten most read published during 2016 in *J Dent Res* (Impact Factor 4.062 and ranked second in dentistry). Most of these papers explore the oral sciences. Those included in this section, have an increased focus on the practice of dentistry (one paper has been previously summarised in the *Br Dent J* – DOI: 10.1038/sj.bdj.2016.598).

Implant failure – antidepressants

Factors influencing early dental implant failures

Chrcanovic BR, Kisch J *et al.* *J Dent Res* 2016; **95**: 995–1002

Antidepressants would appear to be as important a factor in the cause of early implant failure as smoking.

Only the taking of antidepressant drugs at the patient-level, and smoking at both the implant- and patient-level were associated with implant failure. With respect to antidepressants, several papers are cited that state those drugs which antagonise serotonin uptake (for example, citalopram) influence bone metabolism. Of note, data for this study were collected between 1980 and 2014; in the 1980s MAIOs and tricyclic depressants were used commonly to treat depression. Smoking, of course, among other effects, influences osteoblasts but also microcirculation. Bone of poor quality was not a factor in early implant failure. This was a retrospective study of 2,670 patients who had received 10,096 implants over a 30-year period in one specialist clinic. Of note 6.36% of implants were lost before reconstruction.

DOI: 10.1038/sj.bdj.2017.167

'Lactobacillus rhamnosus'

Probiotic compared with standard milk for high-carries children: a cluster randomized trial

Rodríguez G, Ruiz B *et al.* *J Dent Res* 2016; **95**: 402–407

As *L. rhamnosus* is cleared rapidly from the mouth, any effect that this probiotic has in reducing caries is such that it should be taken daily.

It is claimed that *L. rhamnosus*, the super probiotic, can be used to treat a host of problems from urogenital tract infections to peanut allergies and anxiety. This was a triple-blind, placebo-controlled cluster randomised trial (groups of subjects, as opposed to individual subjects, are randomised), carried out in Chile. The aim was to compare the caries increment in preschool children in those who took milk supplemented with this probiotic versus a standard milk. The investigators found 'the regular long-term intake of probiotic-supplemented milk may reduce caries development in high-carries preschool children.' Plausibility for the effect of probiotics is in abundance: 'combined local and systemic effects that involve adhesion, coaggregation, competitive inhibition, production of organic acids and bacteriocin-like compounds, and immune modulation.'

DOI: 10.1038/sj.bdj.2017.169

Root canal bug, leave my heart alone!

Association of endodontic lesions with coronary artery disease

Liljestrand JM, Mäntylä P *et al.* *J Dent Res* 2016; **95**: 1358–1365

Endodontic lesions are independently associated with coronary artery disease.

It is now over five years ago that a review article was published in *J Dent Res* linking periodontal pathogens and atherosclerosis ('Gum Bug, Leave My Heart Alone!...' *J Dent Res* 2010; **89**: 879–902). This study looked for links between endodontic lesions and coronary artery disease. Approximately 10% of root-treated teeth have endodontic lesions. This cross-sectional study, that recruited patients from the Finnish Parogene study, investigated 508 patients who underwent coronary angiography. Those with highest number of endodontic scores were associated with acute coronary syndrome (OR = 2.46, 95% CI = 1.09 to 5.54, P = 0.030). The association between endodontic lesions and acute coronary syndrome was stronger in patients who had not received root canal therapy. *Porphyromonas endodontalis* is a key candidate endodontic pathogen. This bacterial species can invade vascular endothelial and smooth muscle cells. In this study, endodontic lesions were associated with specific *P. endodontalis* antibodies.

DOI: 10.1038/sj.bdj.2017.168

Sugar

Sugar consumption and changes in dental caries from childhood to adolescence

Peres MA, Sheiham A *et al.* *J Dent Res* 2016; **95**: 388–394

Despite the water being fluoridated, there was still an association between those who consumed only low levels of sucrose and dental caries.

WHO (2015) concluded that the evidence for an association between sugar intake and dental caries is of only moderate quality. Remarkably there has been 'no prospective cohort study from early childhood to young adulthood' exploring this issue. This prospective population-based birth cohort study carried out in Brazil, showed a relationship between sugar consumption and dental caries; after adjusting for confounders, dental caries increment ratio was 20% higher when the subjects were 6 years old and 66% higher when 18 years old in those who consumed high levels of sugar compared with those who consumed low levels of sucrose. As shown in the seminal Dunedin cohort study, caries occurred at a relatively constant rate over the period of the study.

DOI: 10.1038/sj.bdj.2017.170