

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.

PROBIOTICS

Effects of probiotic *Lactobacillus salivarius* W24 on the compositional stability of oral microbial communities

Pham LC, van Spanning RJM *et al.* *Arch Oral Biol* 2009; **54**: 132–137

Probiotics may 'increase the cariogenic potential of the oral microbial community'.

Probiotics have been used in the treatment of inflammatory bowel disease, vaginitis and hypercholestaemia. Few studies, have examined their possible role in oral diseases. This *in vitro* study investigated the penetration of the intestinal probiotic, *Lactobacillus salivarius* W24, in an artificial microbial community and the resulting cariogenicity of the biofilm. Plastic wells containing saliva and hydroxyapatite discs were incubated with and without W24 and sucrose. The resulting biofilms were interrogated using gene-based denaturing gradient gel electrophoresis. Incubation with sucrose resulted in microcosms that had a less diverse microbial community. With the addition of W24 and sucrose, the pH was significantly lower compared with sucrose alone.

DOI: 10.1038/sj.bdj.2009.317

ORAL CANCER

The role of vegetable and fruit consumption and other habits on survival following the diagnosis of oral cancer: a prospective study in Spain

Sandoval M, Font R *et al.* *Int J Oral Maxillofac Surg* 2009; **38**: 31–39

Consumption of vegetables may improve treatment outcome in those with oral cancer.

In 146 patients that were receiving treatment for oral cancer, 'survival curves were compared with the log-rank tests' to explore the role of dietary features, life-style habits and other factors on recurrence and survival. Despite the authors conceding there was a lack of statistical power, recall biases with oncological diseases and other confounders, the consumption of 'vegetables before and after diagnosis were both associated with lower recurrence rates and longer overall survival'. However, those that gave up tobacco and alcohol did not have statistically significantly better outcomes. Amongst other factors, patients who presented with pharyngeal pain had a better prognosis than those with cervical lymph node enlargement.

DOI: 10.1038/sj.bdj.2009.318

ORTHODONTICS

How well does Invisalign work? A prospective clinical study evaluating the efficacy of tooth movement with Invisalign

Kravitz ND, Kusnoto B *et al.* *Am J Orthod Dentofacial Orthop* 2009; **135**: 27–35

Tooth movements with Anterior Invisalign.

'The Invisalign system uses CAD/CAM stereolithographic technology' to construct from a single impression, a series of polyurethane aligners. However, 'many orthodontists report that 70–80% of patients' receiving Invisalign, require midcourse correction or other adjunctive treatment. The aim of this study was to determine, using ToothMeasure software, if treatment of 37 patients with Anterior Invisalign, resulted in the predicted tooth positions. The posterior teeth formed the fixed reference points. 'The most accurate movement was lingual constriction' whereas the least was extrusion of the central incisors. Correcting rotations of canine teeth were less effective than those of other teeth, particularly if the desired rotational movements were greater than 15°. The authors acknowledge the limitations of this study.

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ENDODONTICS

Time-dependence of coronal seal of temporary materials used in endodontics

Madarati A, Rebak MS *et al.* *Aust Endodont J* 2008; **34**: 89–93

After endodontic treatment, Coltisol and glass ionomer cement are suitable temporary restorative materials.

The aim of this *in vitro* study, was to investigate the efficacy of 4 temporary restorative materials to achieve a coronal seal in 135 root-filled premolar teeth 1, 2 and 4 weeks after placement (Table 1 states '3 weeks'). For each temporary restoration, a 3.5–4 mm thickness of material was used. The samples were then thermocycled, placed in methylene blue dye and sectioned. Dye-penetration was measured using a stereomicroscope. Coltisol and glass ionomer cement (GIC) resulted in significantly less leakage than intermediate restorative material (IRM) and zinc phosphate cement (ZP) at all three time intervals (1 week values: Coltisol = 1.28 mm, GIC = 0.76 mm, IRM = 5.52 mm, ZP = 5.01 mm, gutta percha alone 'control group' = 9.62 mm). The authors conclude that Coltisol and GIC 'are both suitable as temporary restorative materials but should not be used for more than 1 or 2 weeks'.

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