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.

SCREENING FOR ORAL CANCER

Evidence-based clinical recommendations regarding screening for oral squamous cell carcinomas

Rethman MP, Carpenter W *et al. J Am Dent Assoc* 2010; **141**: 509–520

'In asymptomatic patients seeking dental care, there is insufficient evidence to determine whether screening by means of visual and tactile examination to detect potentially malignant and malignant lesions alters disease-specific mortality.'

From a total of 332 systematic reviews and 1,499 recent clinical studies, five systemic reviews and four clinical studies met the inclusion criteria. Based on these publications, the expert panel made the following recommendations for screening for cancer of the oral cavity only. Commercial devices using autofluorescence and/or tissue reflectance and transepithelial cytology are adjuncts. The majority of the panel favoured screening (opportunistic screening), as they considered the benefit, even though this benefit is only for a few, outweighed risks of false positives and overtreatment. When the panel states there is 'insufficient evidence' (see above), they emphasised that they 'did not find sufficient evidence to support a recommendation'.

DOI: 10.1038/sj.bdj.2010.647

SCREENING FOR OSTEOPOROSIS

Triage screening for osteoporosis in dental clinics using panoramic radiographs

Taguchi A. *Oral Dis* 2010; **16**: 316–327.

Is assessment of mandibular cortical indices (MCI) an effective tool to screen for osteoporosis?

The gold standard for determining bone mineral density, 'one of the major risk factors for fractures from osteoporosis', is dual energy X-ray absorptiometry (DXA). However, DXA is 'not a triage screening tool.' One and a half million dental panoramic radiographs are taken annually in England and Wales. Could such radiographs be used to 'triage' individuals for undetected osteoporosis? The investigator argues that cortical width, when assessed below the mental foramen, gives more robust measurements than those from other mandibular sites. Notwithstanding validity, some studies show a poor accuracy and precision when assessing MCI from panoramic radiographs. However, a recent web-based international collaborative study carried out by the author of this paper, reported a weighted kappa value >0.4 (fair/moderate agreement) when carrying out such screening.

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BRAIN EXERCISES

Occlusion and brain function: mastication as a prevention of cognitive dysfunction

Ono Y, Yamamoto T *et al. J Oral Rehab* 2010;
doi: 10.1111/j.1365-2842.2010.02079.x

'...gum chewing improved alertness and reduced state anxiety, stress, and salivary cortisol.'

This is a comprehensive narrative review. The link between mastication and cognitive function is based on the following: 1) mastication preserves cognitive function in the hippocampus (important in learning and memory) in both animals and humans, 2) reduced mastication is an epidemiological risk factor for dementia in humans, 3) mastication 'rescues the stress-attenuated hippocampal memory process in animals' and 4) mastication in humans is considered to reduce stress. It is suggested that the mechanism underpinning these observations is that mastication suppresses the hypothalamic-pituitary-adrenal axis. When occlusal disharmonies were created in animals, there were increases in plasma corticosterone that persisted for weeks.

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AGGRESSIVE PERIODONTAL DISEASE

Classical versus contemporary treatment planning for aggressive periodontal disease

Nevens M, Kim DM. *J Periodontol* 2010; **81**: 767–775.

A conservative approach to the management of aggressive periodontal disease '...should not be simply discarded because of the availability of dental implants.'

This case history describes how the periodontal condition of a patient had been stabilised and maintained for almost 40 years by adopting a conservative strategy. At her initial periodontal consultation, she demonstrated generalised 70% bone loss. The stabilisation phase comprised conventional quadrant scaling with home care. Teeth of hopeless prognosis were extracted, periodontal surgery was carried out on remaining teeth and the upper and lower arches were reconstructed using 'round-house' bridges with a shortened-dental arch configuration. Subsequently, the patient received supportive care every 3 months, 'rarely missed (ing) a maintenance appointment in almost four decades'. The authors reflect on how this treatment strategy would have differed if she had presented now. For example, they suggest distraction osteogenesis could be used to augment the ridges vertically in order to replace the extracted teeth with implants.

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