

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.

BITEMARKS – UNDERPINNED BY SCIENCE?

The role of forensic dentistry in forensic science: issues and validity?

Adams C. *Fac Dent J* 2012; **3**: 199–201

The National Academy of Sciences in the US states that bite marks have been used ‘...in criminal trials without any meaningful scientific validation...’

Only three studies have explored the reliability of bite mark analysis. They report false positives ranging from an unacceptable ca. 15% to a staggering 91%. This is not unexpected, as during the assault there is variable 1) tissue bruising, 2) abrasion, 3) puncturing, 4) movement between the teeth and skin, and 5) all such injuries could occur through clothing. Furthermore, there is no evidence that the dimensions and positions of anterior teeth are unique to that individual. However, bite mark analysis does have a role in establishing that teeth were the ‘offensive weapon’ and, when excluding or including a suspect if there is ‘a confirmed small pool of possible perpetrators such as is often the case in child abuse investigations’.

DOI: 10.1038/sj.bdj.2012.1155

IMPLANT MAINTENANCE

Evaluation of the safety and efficiency of novel metallic ultrasonic scaler tip on titanium surfaces

Baek S-H, Shon W-J *et al. Clin Oral Implant Res* 2012; **23**: 1269–1274

A novel metallic copper alloy ultrasonic scaler tip was effective (in dissipating power to the tip-surface junction) with minimal damage to the experimental titanium surface.

The use of a plastic or plastic-headed scaler tip for débridement of dental implants has been advocated because they cause minimal surface damage. However, the ability of these tips to disrupt deposits has been questioned. In this study, the ‘efficiency’ of a novel metallic copper alloy ultrasonic scaler tip was found to be many fold higher than a plastic tip and comparable to a conventional stainless-steel tip. In the second arm of this study, the metallic copper alloy tip caused minimal damage to the titanium experimental block and significantly less than the conventional stainless steel tip. Depending on operating conditions, there is considerable variability in the ‘efficiency’ of ultrasonic scaler tips, even if they are of the same design.

DOI: 10.1038/sj.bdj.2012.1156

PERIODONTAL DISEASE CLASSIFICATIONS

Contesting conventional periodontal wisdom: implications for periodontal classifications

López R, Baelum V. *Community Dent Oral Epidemiol* 2012; **40**: 385–395

A ‘useful periodontal classification should be determined by documented differences in the management of each entity’.

Nosology classifies diseases. Despite this being at the heart of conventional medicine, such groupings of diseases are sometimes little more than a label ascribed to a collection of observations. But where does this leave the patient when the cause or the cacophony of signs and symptoms are ambiguous?

During the past 25 years, there have been more than ten different periodontal disease classification systems. Within this backdrop, the authors of this paper make the following assertions: 1) the present periodontal disease classifications ‘obstruct(s) our understanding of the disease’, 2) the veracity of any classification should be predicated on ‘well-documented differences in the management of each entity’, 3) treatment outcomes must have an evidence base, and 4) more subtly, the ‘need for a distinction between therapy and prevention is therefore less clear than one might think’. It is mooted that the ‘prevailing idea that the periodontal disease classification should be based on etiology’ should be abandoned. The present largely reductionist approach to classifications of periodontal disease is bad science. Furthermore from a moral perspective, the authors of this paper argue that such a model promulgates a ‘high-risk strategy’ (‘targeted rescue operation’ for the ‘deviant minority’) which perpetuates the unacceptable culture of ‘victim-blaming’.

The authors consider periodontal disease should be looked at from the ‘ecosocial premise of embodiment.’ In this, the ‘central focus is on how people literally embody – biologically – social conditions, thereby generating inequitable population distributions of health’ (see Krieger N. *In* Anderson N B (ed) *Encyclopedia of health and behaviour*). And this chimes with the author’s ‘nominalistic disease concept’ for periodontal disease (denying the existence of universals). This paper urges both the practitioner and scholar to look at periodontal disease from a ‘widespread exposure to smaller risks’ as opposed to ‘the confined exposure to a few large risks’.

The simple message from this challenging paper is that a classification of disease, including periodontal disease, is only valuable if it drives the therapeutic imperative.

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