

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.

POSTOPERATIVE ENDODONTIC PAIN

Effect of working length measurement by electronic apex locator or digital radiography on postoperative pain: a randomized clinical trial

Tuncer AK, Gerek M. *J Endod* 2014; 40: 38–41

One quarter of patients experience post-operative pain following single-visit root canal therapy.

The aim of this study was to compare post-operative pain following single-visit root canal treatment when working lengths were established using, 1) an electronic apex locator (Root ZX apex locator, 'the gold standard'), and 2) digital radiography. This study was carried out with 220 patients. In each patient, root canal therapy was performed on asymptomatic single-rooted teeth with vital pulps. There was no difference in post-operative pain, for up to two days following treatment, between these two methods of determining working length measurement. These results should be interpreted in the light that 1) teeth were excluded from the study (number of teeth not stated) if the root canal file extended beyond the apex in those teeth whose working lengths were established by radiography only, and 2) flurbiprofen was taken if the patients experienced pain (again, no data given). It is conceded that many factors could be associated with post-operative endodontic pain.

DOI: 10.1038/sj.bdj.2014.155

MISDIAGNOSIS

Nonendodontic lesions misdiagnosed as apical periodontitis lesions: series of case reports and review of literature

Corrêa Pontes FSC, Fonseca FP *et al.* *J Endod* 2014; 40: 16–27

A diffuse multilocular appearance, a moth-eaten radiolucency, the sunray appearance, the Codman triangle (new subperiosteal bone, after the periosteum has been raised), 'floating teeth', pain or paraesthesia should each raise suspicion.

There are two arms to this study. The first describes 11 lesions misdiagnosed as apical periodontitis seen over a ten year period at University Hospital João de Barros Barreto, Brazil. Histology revealed among other pathology, traumatic bone cysts, odontogenic keratocystic tumour (keratocystic odontogenic tumour) and a mucoepidermoid carcinoma. In the second part of the study, the authors tabulated lesions ascribed in the literature of endodontic cause that were substantially established to be of nonendodontic origin (n = 56 including those identified in the first part of this paper). Any comparison of the frequencies of different pathologies may be nothing more than a reflection of those papers judged worthy of publication. It is important that when carrying out pulp sensitivity testing, lesions of 'nonendodontic origin may lead to pulp necrosis when located close to root apices'. The legendary Stafne bone cavity was seldom ascribed to as an endodontic cause.

DOI: 10.1038/sj.bdj.2014.156

PERIRADICULAR SURGERY

Current strategy for successful periradicular surgery

Tsurumachi T. *J Oral Sci* 2013; 55: 267–273

'surgical microscopes, ultrasonics, and compatible root-end filling materials has made periradicular surgery a much more predictable treatment'

But is there robust data to support such a statement? The author also suggests that the 'success rate for periradicular surgery (50–90%) is lower than that of root canal retreatment'. But with such a large range and the somewhat arbitrary cut-off of four years after treatment, where does this leave the patient when they have to decide between retreatment or periradicular surgery? For both diagnosis and measuring outcome, CBCT has been used to supplement those findings from more traditional methods. Now, not only is there the Leubke-Ochsenbein flap ('submarginal muco-periosteal flap(s)... with a horizontal incision within the attached gingiva') but there are other designs of flaps all with the aims of optimising healing and gingival aesthetics. At least 3 mm of the root-end should be resected. Root-end preparation is now carried out using ultrasonic instruments. MTA has been added to the armamentarium of root-end fillings, despite its prolonged setting time and difficulty with manipulation.

DOI: 10.1038/sj.bdj.2014.157

DIET – TRIGEMINAL NEURALGIA

Low saturated fat diet is effective in trigeminal neuralgia

Verma N, Sherwood F. *Open J Prev Med* 2013; 3: 402–406

One of the investigators (FS) was motivated to examine a low fat saturated diet (LFSF), because a friend with severe trigeminal neuralgia avoided micro-vascular decompression using such an approach.

It is reported that there is nothing new in treating neurological illnesses with diet. In this study, 55 patients were recruited with trigeminal neuralgia with almost one third having received surgical intervention. The low fat saturated diet, as used in this study, would not impose the strict restrictions entailed by, for example, the Ornish diet or the Esselstyn diet. Almost all those with typical trigeminal neuralgia and 71% with atypical trigeminal neuralgia 'improved from severe pain level to minimal' within one month of using the LFSF. In addition, 72% of patients on medications reduced or discontinued their use and remarkably there were favourable outcomes for those who gained no improvement following surgery. The investigators concede 'biological improbability' but recover their position by stating that 'many novel therapies are initially serendipitous, and appear dramatic and improbable.' The only side effect was weight loss!

DOI: 10.1038/sj.bdj.2014.158