

## ABSTRACTS

### Periodontopathic microorganisms in peripheral blood after scaling and root planing

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#### Aim

The objective of this study was to evaluate the frequency of periodontopathic and other subgingival anaerobic and facultative bacteria in the bloodstream following scaling and root planing (SRP).

#### Material and methods

Forty-two patients with severe generalised chronic periodontitis (GChP) and generalised aggressive periodontitis (GAgP) were included in the study. Four samples of peripheral blood were drawn from the cubital vein at different times: pre-treatment (immediately before the SRP procedure [T1]); immediately after treatment (T2); 15 minutes post treatment (T3); and, 30 minutes post treatment (T4). In order to identify the presence of microorganisms in blood, subcultures were conducted under anaerobic conditions.

#### Results

Some 80.9% of the patients presented positive cultures after SRP and it occurred more frequently immediately after treatment; however, 19% of the patients still had microorganisms in the bloodstream 30 minutes after the procedure. The periodontopathic microorganisms more frequently identified were *Porphyromonas gingivalis* and *Micromonas micros*. *Campylobacter* spp., *Eikenella corrodens*, *Tannerella forsythensis*, *Fusobacterium* spp. and *Prevotella intermedia* were isolated less often. *Actinomyces* spp. were also found frequently during bacteraemia after SRP.

#### Conclusions

In this study, SRP induced bacteraemia associated with anaerobic bacteria, especially in patients with periodontal disease.

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### Evaluation of formocresol versus ferric sulphate in primary molar pulpotomy: a systematic review and meta-analysis

Peng, L., Ye, L., Guo, X., Tan, H., Zhou, X., Wang, C., Li, R.

#### Aim

To present a systematic review of the effects of formocresol and ferric sulphate when used as medicaments in pulpotomised primary molar teeth.

#### Methodology

The study list was obtained by using MEDLINE, the Cochrane Library, EMBASE and SCI search. Only those papers which met the inclusion

criteria were accepted. The quality of studies used for meta-analysis was assessed by a series of validity criteria according to Jadad's scale. A systematic review and meta-analysis were performed.

#### Results

Eleven clinical studies comprising four randomised clinical trials (RCTs), four controlled clinical trials (CCTs), and three retrospective studies were included. The results of the meta-analysis of six prospective clinical trials suggested that the two popular pulpotomy medicaments were not significantly different in terms of clinical outcomes, radiographic findings, prevalence of apical and furcal destruction, internal root resorption or pulp canal obliteration. The relative risk (RR) value and 95% CI for those parameters were 0.72 (0.43–1.23), 0.87 (0.59–1.30), 0.67 (0.27–1.66), 1.77 (0.56–5.58), and 1.41 (0.63–3.15), respectively. The overall clinical and radiographic success rates based on the data of treatments with ferric sulphate from the 11 studies included ranged from 78% to 100% (mean 91.6 ± 8.15%) and from 42% to 97% (mean 73.5 ± 18.40%), respectively.

#### Conclusions

In primary molar teeth with exposure of vital pulps by caries or trauma, pulpotomies performed with either formocresol or ferric sulphate have similar clinical and radiographic success. Ferric sulphate may be recommended as a suitable replacement for formocresol.

*International Endodontic Journal* 2007; 40 (10): 751–757.

### Guidelines for the management of traumatic dental injuries. III. Primary teeth

Therese Flores, M., Andersson, L., Andreassen, J.O., Bakland, L.K., Malmgren, B., Barnett, F., Bourguignon, C., DiAngelis, A., Hicks, L., Sigurdsson, A., Trope, M., Tsukiboshi, M., von Arx, T.

Trauma to the primary dentition presents special problems and management is often different from that of permanent teeth. An appropriate emergency treatment plan is important for a good prognosis. Guidelines are useful for delivering the best care possible in an efficient manner. The International Association of Dental Traumatology (IADT) has developed a consensus statement after a review of the dental literature, and group discussions. Experienced researchers and clinicians from various specialties were included in the group. In cases in which the data did not appear conclusive, recommendations were based on the consensus opinion of the IADT board members. The guidelines represent the current best evidence based on literature research and professional opinion. In this third article of three, the IADT Guidelines for the management of traumatic injuries in the primary dentition are presented.

*Dental Traumatology* 2007; 23 (4): 196–202.

## Oral implants in radiated patients: a systematic review

*Colella, G., Cannavale, R., Pentenero, M., Gandolfo, S.*

### Purpose

Oral malignancy is often treated with a combination of surgery and radiation therapy (RT). The aim of this systematic review was to examine the effects of pre- and post-implantation RT on dental implant failure.

### Materials and methods

The literature published from 1990 through 2006 was reviewed for studies assessing pre- and post-implantation RT. Potential studies were identified by searches of PubMed, SCIRUS and the Cochrane Central Register of Controlled Trials (CENTRAL). The incidence of implant failure has been linked to the following variables: post-versus pre-implantation RT; site of implant placement; RT dose; delay from RT to implant placement; and, timing of implant failure after placement.

### Results

Similar failure rates were found for implants placed post RT compared to those placed pre RT (3.2% and 5.4%). In pre-implantation RT, the implant failure rate was lower for the mandible (4.4%) in comparison to the maxilla (17.5%; OR = 4.63; 95% CI: 2.25 to 9.49). Other results did not reach statistical significance. No failures were observed in association with an RT dose lower than 45Gy. All implant failures observed occurred within 36 months of RT, and most occurred between one and 12 months after placement.

### Conclusion

Notwithstanding the low number of implants evaluated, this review showed a similar failure rate for implants placed post RT and those placed pre RT (3.2% and 5.4%, respectively).

*Int J Oral Maxillofac Implants 2007; 22 (4): 616-622.*



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