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ENDODONTICS

Repair of root perforations using mineral trioxide aggregate: a long-term study

Main C, Mirzayan N *et al.* *J Endodon* 2004; **30**: 80-83

Mineral trioxide aggregate (MTA) appears to encourage healing when placed in root perforations.

Repair of root perforation often leaves inflammation present in the tissues. MTA appears to be compatible with the surrounding tissues and also allows some regeneration to take place in osteoblast models. It also appears to promote cementum regeneration. This study identified 16 patients who had root perforations treated with MTA at a Californian university. For each patient, 3 radiographs were evaluated blind by 3 examiners: before and immediately after treatment of the perforation, and at least 1 yr later.

The perforations were categorised as lateral ($n = 5$), strip (5), furcal (3) and apical (3). No tooth had pockets >3 mm. Prior to repair, 7 patients had radiolucent lesions. At follow-up (mean 25 months; range 12-45), all these had repaired, and no new radiolucencies had developed. The authors comment that MTA is an excellent material and recommend further studies to establish the prognosis for such repairs.

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LOGOPAEDICS AND PHONIATRICS

Consonant intelligibility and tongue motility in patients with partial glossectomy

Bressman T, Sader R *et al.* *J Oral Maxillofac Surg* 2004; **62**: 298-303

Good speech after a glossectomy may require good tongue motility.

The removal of part of the tongue is sometimes necessary to treat tumours, but there is considerable variation in the speech outcome. Factors involved may include the amount of tissue removed, the reconstructive technique employed and the degree of tongue motility after surgery. In this study, speech performance was assessed in 14 German patients who had undergone surgery followed by radiotherapy of 60 Gy. Six patients had received platysma flaps in reconstruction.

Sound recordings were made at least 6 months after surgery, and tongue motility was also assessed. Speech intelligibility and acceptability was assessed by 2 raters, who worked blind. The degree of exact agreement on the rating of intelligibility was 85%, and of acceptability, 63%.

Better consonant intelligibility performance was linked to tongue motility ($r = 0.62$; $P < 0.02$), as was consonant acceptability ($r = 0.74$; $P < 0.01$). There was significantly better intelligibility in 4 patients who retained an intact genioglossus. The authors suggest that this supports the current practice of speech and language pathologists who seek to improve speech in these patients by exercising nonspeech oral motor function.

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DENTINE HYPERSENSITIVITY

The long-term effectiveness of five current desensitizing products on cervical dentine sensitivity

Duran I, Sengun A *J Oral Rehabil* 2004; **31**: 351-356

Five different agents all reduced dentine hypersensitivity 3 months after application, and one appeared more effective than the others.

Numerous substances have been applied to sensitive dentine with the aim of reducing the discomfort, and this study compared 5 such preparations on 277 sensitive teeth in 52 patients. Patients assessed their own sensitivity on a visual analogue scale in response to a 1 s air blast 2 mm from the tooth surface while shielding adjacent teeth. This was done prior to treatment, immediately afterwards, and 10 dys and 3 months later, by an examiner blind to treatment.

With all 5 substances, there was an immediate reduction in mean sensitivity scores by about two-thirds, with a tendency to relapse slightly at 10 dys, and more at 3 months. However, there was still a significant reduction from baseline scores at 3 months. At 3 months, Product Liner F showed a significantly greater reduction than the other substances tested (Fluoline, Gluma Desensitizer, Health Dent and Single Bond).

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TRAUMA

Falls in elderly people that result in facial injuries

Wade CV, Hoffman GR *et al.* *Br J Oral Maxillofac Surg* 2004; **42**: 138-141

The nature of the injury is associated with recollection of the event.

Older people are more active than they used to be and therefore more exposed to injury. About 35-40% of over 65-year-olds fall each year, and most of these are in winter. Those who break an arm may have stretched out their hand consciously, but those who sustain facial injuries may have lost consciousness. This prospective study compared 25 patients with upper limb injuries and 25 with maxillofacial injuries presenting at a UK hospital.

About 1/5 of all patients were male. Mean age for arm injuries was 75 yrs, and for maxillofacial injuries, 80. Most of the latter sustained facial laceration, and most of the former, fractured radius. The event was remembered by only 15 of the latter, but by 23 of the former ($P = 0.02$). The authors comment that this may indicate reduced consciousness arising from a pre-existent medical condition. The commonest medical condition recorded was cardiac disease (32%). Eight patients suffered from dementia, which is a known risk factor for falls.

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