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ORAL SURGERY; TRAUMA

Transalveolar screws and the incidence of dental damage: a prospective study

Fabroni G, Aabed S *et al. Int J Oral Maxillofac Surg* 2004; **33**: 442–446

Damage to teeth appeared rare, although about a quarter of screws were in contact with teeth

Transalveolar screws have certain advantages when used for temporary intermaxillary fixation, but there is concern about possible dental complications. In this study, 55 of 57 enrolled patients with suitable mandibular fractures completed follow-up. GA was used in 50 cases, and LA in five. Following removal of 232 screws inserted adjacent to 440 teeth, contact was radiographically assessed.

More than 50% overlap of tooth by hole (major contact) affected 26 teeth, and <50% (minor), 37 teeth. Screws were in place for 5–50 days (mean 23) before removal (in 49 patients without LA). Adjacent teeth were electronically assessed for vitality at the removal appointment (this had presented some problems at the first appointment). Only six of 17 apparently non-vital teeth were in contact with screws. The authors consider transalveolar screws to have advantages over arch bar techniques.

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PREVENTIVE DENTISTRY

The effect of five years' implementation of caries-preventive methods in Swedish high-risk adolescents

Källestål C. *Caries Res* 2005; **39**: 20–26

Programmes directed at high caries risk 12-year-olds showed low efficiency.

Swedish health policy changed from population-based caries prevention to a strategy of caries prevention in high-risk individuals 15 years ago. In this study, 1,134 high-risk 12-year-olds were identified in a cohort of 3,373 subjects drawn from throughout Sweden, and randomly assigned to one of four preventive programmes: brushing with F- toothpaste, use of F- lozenges, F- varnish application three times in one week every six months, and an individual approach with hygiene and diet counselling and professional cleaning and varnish application.

Over a five year period (20% dropout), subjects' DMFS and DeMFS were recorded annually. For the whole group, these mean scores were respectively 2.8 and 4.6 at age 12 years, and 6.8 and 11.2 at 17 years. No differences were found between groups. There were moderate significant reductions in caries increment in the varnish group and in subjects with at least one sealant. The authors conclude that the programmes all showed low efficiency.

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ORAL MEDICINE

Evaluation of unstimulated flow rates of whole and palatal saliva in healthy patients wearing complete dentures and in patients with Sjögren's syndrome

Márton K, Boros I *et al. J Prosthet Dent* 2004; **91**: 577–581

Hyposalivation did not appear to affect denture retention.

Complete denture retention depends partly on the underlying salivary film. New dentures may also increase salivary flow. This study compared 24 healthy patients (HP) requiring replacement of complete dentures with 11 complete denture-wearing patients with Sjögren's syndrome (SS).

Both groups were of mean age 67 yrs, but all the SS patients were female, compared with only 15 of HP. All SS patients felt xerostomic, and eight considered they hyposalivated. The unstimulated mean whole salivary flow rate for HP was 0.36 ml/min and for SS, 0.09 ml/min ($P < 0.05$). Parotid saliva flow rate was similar in SS patients at 1.96 μ l/min/cm², and HP at 1.66 μ l/min/cm².

One week after construction of new dentures, the HP group did not significantly increase salivary flow rates. The authors comment that subjective feelings of xerostomia may relate to whole salivary flow, and that parotid saliva may play a significant role in maxillary complete denture retention and stability.

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ORAL SURGERY

Intra-oral removal of stones from the hilum of the submandibular gland: report of technique and morbidity

McGurk M, Makdissi J *et al. Int J Oral Maxillofac Surg* 2004; **33**: 683–686

Medium term follow-up shows this technique to have advantages over sialadenectomy in those cases where it can be performed.

Current evidence suggests that salivary glands may regain some function after stone removal, and in this study, 55 selected patients were treated with a conservative intra-oral technique. Median follow-up was 25 months (range 4–47).

In one case, the stone was not found in the hilum, though palpable. In 54 patients, stones were removed. Subsequently, sialadenectomy was performed for four patients with repeated glandular infection; two patients reported mild obstructive symptoms at mealtimes; all patients had altered lingual nerve perception at one week, which regressed by one month.

The authors comment that these adverse effects are less than following sialadenectomy, which is performed for about 2,000 patients each year in the UK, and that haemorrhage (which can be serious) and nerve injuries in particular are minimised. The intra-oral technique also may be performed under LA or as day case surgery.

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