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PREVENTIVE DENTISTRY

Effectiveness of fluoride in preventing caries in adults

Griffin SO, Regnier E *et al.* *J Dent Res* 2007; **86**: 410-415

This meta-analysis quantified useful preventive effects of fluoridation and other fluoride applications on both coronal and root caries in adults.

Most evidence on the effectiveness of fluoride in preventing caries comes from studies in children. This systematic review identified 20 studies with 13,551 participants aged 17 yrs upwards.

In 2 groups of 9 studies on water fluoridation, caries reductions of 35% (5,409 life-long residents) and 27% (studies published after 1979) were identified ($P < 0.001$). In all studies combined, coronal caries and root caries were both reduced by any mode of fluoride application.

The authors note that from studies published after 1979, caries reduction was about 25%, which is similar to that in children and adolescents. Furthermore, because more adults are retaining teeth longer than previously, caries is becoming a more important health issue for them.

DOI: 10.1038/bdj.2007.728

ORAL SURGERY; ONCOLOGY

Surgical management of squamous cell carcinoma of the lip: analysis of a 10-year experience in 223 patients

Vukadinovic M, Jezdic Z *et al.* *J Oral Maxillofac Surg* 2007; **65**: 675-679

Outcomes were largely favourable and metastasis was rare.

For lip squamous cell carcinoma (SCC) smaller than 2 cm, the cure rate is around 90%, but where lymph node metastasis develops, this reduces to below 50%. In a Belgrade hospital from 1991-2000, 223 patients were treated for SCC of the lip. In 48%, there was a history of chronic sun exposure, and in 59%, past or present smoking.

Tumour stage 1 accounted for 90% of SCCs. Palpable nodes were present in 27% of patients, all of whom received neck dissections. Of these, 85% had histological metastases. Several different techniques were used for lip defect reconstruction. In 10 patients, regional metastases developed within a 56 month follow-up; 5 of these patients died. The authors emphasise the need for a multidisciplinary approach to treatment.

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ENDODONTICS

Outcome of root canal obturation by warm gutta-percha versus cold condensation: a meta-analysis

Peng L, Ye L *et al.* *J Endod* 2007; **33**: 106-109

Warm gutta-percha (GP) was more likely to overextend.

Ideal root fillings should seal the canal and eliminate all routes from the pulp cavity to the periodontium. Warm condensation appears better at filling the canal, but more difficult to control. Studies *in vitro* have given inconsistent results. In this meta-analysis, 10 clinical papers met selection criteria, but only 2 achieved a Jadad score of 3 or more (an indicator of satisfactory quality).

In 3 studies, follow-up was less than a year, but it was 1-5 yrs in the remainder. The two techniques gave similar results from 1748 teeth for incidence of postoperative pain, long term outcome and obturation quality. However, overextension occurred nearly twice as often in the warm GP group ($P < 0.001$).

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PAEDODONTICS; TRAUMA

Traumatic dental injuries and associated factors among Brazilian preschool children

Oliviera LB, Marcenes W *et al.* *Dent Traumatol* 2007; **23**: 76-81

Children with anterior open bite had twice the level of traumatic dental injury (TDI).

Studies of TDI in preschool children have given inconsistent results regarding associated factors. On a Brazilian national day for children's vaccination, a random sample of 892 children was selected for TDI examination in 15 health centres in one city which had a regular 98% uptake. Parents also were interviewed.

The prevalence of TDI was 9.4%, and ranged from 0.8% in the first yr of life to 14.4% in the 4th yr. Enamel fracture was present in 69% of these, enamel-dentine fracture in 14% and missing teeth due to trauma in 11%. In 5% there was discoloration only. In children with anterior open bite, 14.5% had TDI, compared to 7.4% in those without ($P < 0.001$).

No association was found with socio-economic factors. The authors note that only 7% of TDI had been treated, and comment that TDI treatment needs are not properly met in either poor developing countries or rich developed ones.

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