

Abstracts on this page have been chosen and edited by Dr Trevor Watts

## ORAL AND MAXILLOFACIAL SURGERY; ONCOLOGY

### Antiangiogenic therapy with interferon alpha for giant cell lesions of the jaws

Kaban LB, Troulis MJ *et al. J Oral Maxillofac Surg* 2002; **60**:1103-1111

There was no recurrence in a 1-6 year follow-up of 8 aggressive lesions.

Giant cell tumours rarely metastasize, but frequently recur with reported rates as high as 70%, and may be locally aggressive. There currently is considerable interest in the role of angiogenesis in tumour spread, and the authors postulated that giant cell lesions might depend on this mechanism for some of their effects.

This study involved 6 patients who had already experienced 8 recurrences, and 2 who had large, rapidly growing lesions. Following enucleation of the lesions with preservation of teeth and nerves, a course of interferon alpha was given daily for 6 to 8 months.

There were several complications which the authors viewed as minor, and all patients completed scheduled treatment. Mean duration of follow-up was 2 yrs (range 0.5-6.7 yrs), and 7 patients had completed treatment. There were no fractures, infections or recurrences, and in all cases the bone cavity rapidly filled with bone.

## CARIOLOGY

### Radiographic dentinal caries and its progression in occlusal surfaces in Dutch 17-year-olds: a 6-year longitudinal study

Poorterman JHG, Weerheijm KL *et al. Caries Res* 2003; **37**: 29-33

Sealants did not prevent substantial new caries and progression of existing lesions in this age group.

Recent studies indicate that much caries may be undetected by clinical examination alone, and that bitewings may be necessary to detect most occlusal caries. In this study, 522 persons aged 17 yrs started a study which led to data from 90 participants being evaluated 6 yrs later.

In first and second molars, 705 occlusal surfaces were examined. Of 175 initially sound fissures, 22% developed a dentine lesion, another 13% were filled, and 2% were sealed but developed caries; of 118 decayed fissures, 38% were filled, 25% showed progression, 13% were filled but were carious at 6 yrs, and 1% were sealed but progressed.

Of 77 sealed sound fissures, 12% were filled, 3% were found to be filled but carious, and 9% were sealed but carious. Of 49 sealed decayed fissures, 35% had been filled, 6% were filled but carious, and 22% had progressed.

## TRAUMA

### Risk factors for major injuries to the face and teeth

Laloo R *Dent Traumatol* 2003; **19**: 12-14

Hyperactivity was associated with major facial and dental injuries.

Of 5913 children aged 4-15 yrs interviewed (parental interview for the younger ones) in the 1997 Health Survey for England, 700 reported major injury over the previous 6 months, and 232 of these were head injuries, with 80 involving the face and/or teeth.

Significant risk factors identified by regression analysis were hyperactivity (OR = 2.62 for borderline cases and 1.95 for high), and families where more than 1 child received social/financial benefit (1.85). Boys classed as hyperactive and from families receiving benefit had the highest risk (7.33).

The author considers that preventive strategies for such injuries should be related to the behavioural and emotional factors involved, along with any underlying socio-economic factors, and notes that the data did not include parental and traffic risk factors.

## DISABILITY; ORAL PHYSIOLOGY

### The cause of drooling in children with cerebral palsy – hypersalivation or swallowing defect?

Tahmassebi JF, Curzon MEJ *Int J Paediatr Dent* 2003; **13**: 106-111

This study suggests that cerebral palsy (CP) does not induce excess saliva production.

From 10% to 37% of CP children have drooling problems which may have social or practical function effects. Physiological studies have suggested that there are problems in the initial (suction) stage of swallowing in CP, but no study appears to have investigated whether hypersalivation is also involved.

Ten CP children with severe drooling problems were compared with 10 matched controls who had no mental or physical disabilities. In the CP children, drooled saliva was collected through a cup with attached tube, with no restriction on talking and jaw movement. In the controls, saliva was collected by passive draining without swallowing.

Mean salivary flow rates per min were 0.22 ml for CP and 0.33 ml for controls ( $P = 0.053$ ) and buffering capacities were similar. The flow rates were similar to other unstimulated rates in experimental literature. The flow rates showed no hypersalivation in the CP group, though the interesting possibility arises that a larger group might have had a significant hyposalivation effect.