

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

CARIOLOGY; NUTRITION

Sucrose intake since infancy and dental health in 10-year-old children

Ruottinen S, Karjalainen S *et al.* *Caries Res* 2004; **38**: 142-148

High caries rate was related to total sucrose intake.

Dental health in some countries has improved without a decrease in total sucrose consumption, and the latter is not very strongly associated with caries (perhaps because frequency of intake is crucial). These researchers investigated caries in children aged 8-11 yrs in a Finnish coronary risk factor study in which dietary records were made. Two groups were selected, each of 33 children, with the highest (H) and lowest (L) 5 percentiles of sucrose intake.

By 2 yrs of age, the daily sucrose intake of the H group was 30 g/dy, and of the L group, 14 g/dy, rising respectively to 53 g and 33 g at age 10 yrs. Most of the difference was accounted for by sweetened dairy products, drinks and juices, and sweets and chocolate. Toothbrushing habits had no effect on dental health.

Mean DMFT was significantly higher in the H group than the L group (1.4 v. 0.5) but not dmft (2.7 v. 1.1), perhaps due to small numbers; the difference was significant for combined DMFT and dmft. There was little effect of socioeconomic factors.

doi:10.1038/sj.bdj.4811470

PAEDIATRIC DENTAL SURGERY

Attitudes towards the use of hand over mouth (HOM) and physical restraint amongst paediatric specialist practitioners in the UK

Newton JT, Patel H *et al.* *Int J Paediatr Dent* 2004; **14**: 111-117

HOM was considered unsuitable, but physical restraint was considered appropriate with some patients.

The gentle use of HOM in dealing with non-cooperative behaviour has long been a matter of controversy, with both legal and moral objections. Parents have considered physical restraint more acceptable than sedation or HOM. In this survey, all 216 registered paediatric dentistry specialists in the UK were asked for their views and 83% responded.

Between 80% and 90% of specialists understood HOM correctly, namely that the mouth alone is covered, the child is told why, and given directions regarding behaviour. Use was endorsed, in hysterical behaviour only, by 32%, but rejected in all circumstances by 59%. Physical restraint was endorsed for handicapped patients (by 62%), the very young (39%), the premedicated (20%), and those who physically resisted (14%). About half the specialists felt HOM would lead a child to fear treatment.

doi:10.1038/sj.bdj.4811471

DENTAL PUBLIC HEALTH

Caries experience and background factors in 4-year-old children: time trends 1967-2002

Stecksén-Blicks C, Sunnegårdh K *et al.* *Caries Res* 2004; **38**: 149-155

After a decline in caries for 20 yrs, the level reached a plateau for the last 15 yrs.

Every 4-7 yrs for a period of 35 yrs, around 100-200 4-yr-old children in Umeå were assessed for caries experience and factors relevant to it. In 1967, 83% had caries, but this figure dropped to less than 50% from 1987 onwards. Mean dmfs scores were 7.8 in 1967, dropping to around 2.0 from 1980, giving a mean score of 4.0-5.0 for those who were affected. Over the whole period, 80-90% reported tooth-brushing 1 or more times daily.

In 2002, most children used fluoride toothpaste. Toothbrushing frequency was significantly related to mean dmfs: seldom brushers, 4.1; once a day, 2.5; and twice or more, 1.2. Immigrant children (10% of sample from 1997) had significantly higher mean dmfs scores (6.8) than others (1.5). About 1/3 never had sugar added to food. Snacking and general health problems did not relate significantly to caries.

The authors comment regarding preventive strategies centred on high risk patients, and say their data show the need for preserving population-based strategies including parental education. They emphasise the special needs of immigrant families.

doi:10.1038/sj.bdj.4811472

ORAL MEDICINE; NEUROLOGY

Diagnostic significance of carbamazepine and trigger zones in trigeminal neuralgia

Sato J, Saitoh T *et al.* *Oral Surg* 2004; **97**: 18-22

Trigger zones are a strong indicator of the condition, and the effect of carbamazepine may confirm the diagnosis.

In this study, 61 patients (mean age 59 yrs) with sharp shooting pains in the mouth and face but no other neurological symptoms were interviewed and examined. All were provisionally diagnosed with trigeminal neuralgia (TN) and prescribed carbamazepine (CBZ). Further examination included MRI and CT scans for intracranial lesions and the final diagnosis was made by agreement between a maxillofacial surgeon and a neurosurgeon.

The final diagnosis was TN in 50 cases (7 were symptomatic of tumours), atypical pain in 6, pulpitis in 2, sinusitis in 2 and trigeminal neuritis in one. CBZ was effective in 45 TN patients, and also in 5 without TN, perhaps because CBZ inhibits nociceptive transmission. Trigger zones were present in 30 patients with TN and 1 with sinusitis. No atypical facial pain patients had a trigger zone. The authors recommend thorough examination of these patients, not least because they may have intracranial tumours.

doi:10.1038/sj.bdj.4811473