

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

Dental and cardiac risk factors for infective endocarditis. A population-based, case-control study

Strom B L, Abrutyn E et al.
Ann Intern Med 1998; 129: 761-769

Following concern about unnecessary antibiotic use, this study questions the need for endocarditis prophylaxis in most dental procedures.

In 54 Philadelphia area hospitals over a 2 year period, all cases of infective endocarditis were sought. After exclusion of questionable diagnoses and endocarditis associated with drug use, 287 patients remained, and 273 or their representatives (25%) were interviewed. Matched community residents were recruited as controls: they were similar in age, gender, ethnicity, education, occupation and dental insurance status.

During the previous 3 months, dental treatment had occurred in patients with known valvular lesions in 29 of 104 endocarditis cases, and in 6 of 17 in the control group; and appropriate antibiotic prophylaxis had been given to 12 of 16 who had an invasive dental procedure in the presence of known valvular lesions, and then developed endocarditis.

The authors suggest the main risk factor is a known valvular lesion, and too few cases of endocarditis are prevented by antibiotics to justify the expense and risk of widespread prophylaxis. An accompanying editorial states the concept of prophylaxis is valid but needs restriction and better focus.

Comparison of temperaments of children with and without baby bottle tooth decay

Kendrick F, Wilson S et al.
J Dent Child 1998; 65: 198-203

This study suggests that baby bottle decay is not related to child behaviour which leads parents to placate the child with a bottle.

In a children's hospital in Ohio, 67 children aged 12-36 months with baby bottle decay and 25 age-matched controls without the condition were compared with respect to the 97-item Toddler Temperament Scale (TTS), which has components of: activity, rhythmicity, distractibility, approach, adaptability, persistence, threshold, intensity and mood.

All incisors had to be present and erupted. To be in the decay group, caries with frank cavitation was required on at least 2 maxillary incisors but not on other tooth types, and to be in the control group, no caries at all. The groups gave similar scores for all components on the TTS. The authors point out that denying the child a bedtime bottle is a solution to the problem, but that it may be more difficult to change such a habit in a child who is used to it. Areas for further study therefore include parenting skills.

A randomized clinical trial comparing the efficacy of mandibular implant-supported overdentures and conventional dentures in diabetic patients

Kapur K K, Garrett N R et al.
J Prosthet Dent 1998; 79: 555-569 and 632-640

Implant-supported overdentures gave no significant improvement on conventional dentures in diabetic patients, and for those with average masticatory performance and above, there was no advantage in food comminution.

Of a group of 102 patients with insulin- or non-insulin-dependent diabetes (IDDM and NIDDM: similar characteristics in both subgroups at entry), treatment was completed for 37 randomised to conventional dentures and 52 to implant-supported overdentures (2 implants linked by a Hader bar).

Failure in the study was defined as where patients did not wear their new dentures for several reasons, experienced chewing discomfort, needed excessive follow-up or experienced implant failure. At 6 months, in the full groups, 64% of conventional dentures and 76% of implant overdentures were considered successful, and 57% and 72% respectively in 14 and 27 who were followed up to 24 months, but there were no significant differences between groups.

In the second paper, there were no significant differences in masticatory performance between IDDM and NIDDM subjects, nor between conventional and overdenture groups. Initial functional levels were higher than for previous studies of denture wearers.

Radiotherapy for cancer of the lip. A long-term evaluation of 85 treated cases

Gooris P J J, Maat B et al.
Oral Surg 1998; 86: 325-330

This study points to the need for careful multidisciplinary treatment planning even for small, easily accessible tumours.

This study covers all patients with squamous cell carcinoma of the vermilion zone of the lip referred over a 20 year period to a Dutch radiotherapy centre. Most were men (93: a higher ratio than expected) and mean age was 66 years (range 30-92). All were white and fair-skinned. External beam radiation (EBR) only was given to 54 patients, of whom 4 had recurrence; 12 received brachytherapy (BT) radiation with no recurrence; 15 received surgery followed by EBR with 2 subsequent further primary lip tumours 7 and 11 years later; 4 received surgery and BT with no recurrence.

During follow-up, 36 patients died, but only one from the lip carcinoma. Another 13 subsequently had second, unrelated malignancies. The EBR recurrences all occurred within 1 year with T2 and T3 primaries; the authors comment that such tumours probably required more thorough treatment. Incomplete surgical removal was the reason for radiotherapy referral in 19 cases; the authors agree with others who advocate frozen sections of margins at surgery.