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CONSERVATIVE DENTAL SURGERY

Long-term evaluation of extensive restorations in permanent teeth

Van Nieuwenhuysen J-P, D'Hoore W *et al* *J Dent* 2003; **31**: 395-405

Extensive restorations of amalgam but not composite resin may be a useful alternative to cast crowns.

This study compared restorations placed by one dentist in 428 people over an 18 year period. All were extensive restorations placed according to strict criteria; 722 were of amalgam (premolars and molars) and 115 of composite resin (largely in premolars), and these were compared with 89 crowns (only in molars).

Patient dropout lost 24% of restorations, 48% were functioning well at the end of the study, and 28% had failed. Failure occurred in 34% of premolar and 27% of molar restorations. The commonest reasons for failure were restoration fracture (8%), secondary caries (6%) and tooth fracture (5%). Median survival times were 7.8 yrs for composite resin, 12.8 yrs for amalgam and >14.6 yrs for crowns.

Extraction was necessary for 14% of failures, but successful repairs were made in 41% of failures. Risk of failure was about 3 times higher for restorations in non-vital teeth, and the absence of a base or the presence of dentinal pins was also associated with a higher failure rate.

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ORTHOPAEDICS; CRANIOFACIAL ANATOMY

Trunk asymmetry and facial symmetry in young adults

Zepa I, Hurmerinta K *et al*. *Acta Odontol Scand* 2003; **61**: 149-153

Trunk and facial symmetry do not appear to be related.

There is contradictory evidence on the association of spinal and craniofacial deformities. This was the first study to examine the relationship of trunk and facial symmetry. A cohort of 1060 Finnish children aged 11 yrs had been followed for another 11 yrs in a spinal growth study. In 79 of these patients, trunk asymmetry with or without thoracic kyphosis was identified. In these subjects, frontal cephalograms were taken in a carefully-defined position, and several landmarks were examined.

In 51 subjects, the cervical spine inclined to the right, and in 28, to the left, which accords with previous findings. There was no significant difference between these groups in respect of several craniofacial morphological landmarks. The authors consider visual perception to be the most important determinant of head position in young adults.

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TOOTH ERUPTION; OBSTETRICS

The eruption of permanent incisors and first molars in prematurely born children

Harila-Kaera V, Heikkinen T *et al*. *Eur J Orthod* 2003; **25**: 293-299

Eruption was earlier in children born pre-term.

Around the time of birth, systemic factors may affect tooth development, and dental defects are significantly commoner in children born pre-term. Studies have also suggested delayed tooth eruption, but not when age is corrected for prematurity. This study examined data from children recruited in a much larger perinatal study over a period of several years.

Eruption dates were compared in 1804 control and 328 pre-term children with a mean prematurity of about 6-8 weeks. Dental examination was performed in a cross-sectional manner at ages of 5-14 yrs. Eruption dates were determined from casts.

Eruption was generally earlier for permanent teeth in pre-term children; in each race and gender group, significantly earlier eruption was found for some teeth. In no case was eruption delayed in pre-term children. The authors discuss factors such as the effects of smoking on both birth and tooth eruption.

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ONCOLOGY

Oral metastases: report of 24 cases

van der Waal RIF, Butler J *et al*. *Br J Oral Maxillofac Surg* 2003; **41**: 3-6

One third of oral metastases appeared to be the first sign of an occult malignancy.

About 1% of oral cancers are metastases from elsewhere in the body. From January 1970 to January 2001, 1537 patients at a university clinic in Amsterdam were diagnosed with oral tumours, and 24 of these were identified as metastases.

The commonest primary was adenocarcinoma of the female breast (6 cases), and in one of these, the oral metastasis was found first, in the gingiva. In 4 out of 5 cases of primary lung tumours, the oral metastasis was found first, in the mandible or maxilla. In 3 cases, the primary was not identified. In all other cases, the primary was identified first, in the kidney (4), the prostate (3), cerebellum, colon or oesophagus.

Survival ranged from 1 to 60 months (median 6). Breast and lung are common sites for primary tumours in the Netherlands, but the kidney is not. Radiotherapy is the usual treatment for jaw bone metastases, and relieves pain in most cases. Palliative surgery may be undertaken for oral soft tissue metastases.

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