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PERIODONTOLOGY; CARDIOLOGY; VASCULAR DISEASES

Periodontal diseases and the risk of coronary heart and cerebrovascular diseases: a meta-analysis

Khader YS, Albashaireh ZSM *et al.* *J Periodontol* 2004; **75**: 1046–1053

There was a small association, but all studies involved some tobacco smokers.

Moderate associations between cardiovascular and periodontal diseases have been found in a number of studies, and there is controversy over whether the latter are causally implicated in the former. One widely-held view is that both are associated because both share the same major risk factor of smoking. In this study, 292 primary references to the literature were selected by a search, 25 were considered potentially relevant, but 14 were excluded because they did not meet inclusion criteria. Seven cohort studies and 4 of other design were included.

In 8 studies, a significantly higher risk of coronary heart disease in periodontal disease subjects was found in 2 only. Meta-analysis gave a relative risk of 1.15 (95% CI: 1.06, 1.25) for periodontitis and 1.11 for gingivitis (NS); for cerebrovascular disease, respective RRs were 1.13 (1.01, 1.27) and 1.37 (1.1, 1.73). The authors suggest these small increased risks should be treated with caution, and note that lack of control for smoking history and lack of power are possible explanations for the studies reporting significant associations.

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ONCOLOGY

Risk factors for oral cancer in newly diagnosed patients aged 45 years and younger: a case-control study in Southern England

Llewellyn CD, Johnson NW *et al.* *J Oral Pathol Med* 2004; **33**: 525–532

Traditional risk factors may not be the only ones implicated in oral cancer in young patients.

There is limited evidence about oral cancer risk factors in younger patients. In these patients there is less time for the traditional risk factors to cause cancer. In this study, 53 newly-diagnosed subjects (mean age 38.5 yrs) were compared with 91 matched controls. Subjects were recruited from 14 hospitals in southeast England.

In the cases, 53% were smokers and in the controls, 26%. Respective ex-smoker proportions were 15% and 42%. For this sample, smoking alone did not produce a significant odds ratio, but ex-smokers had a significant reduction in risk (OR= 0.2; 95% CI: 0.5–0.8). Males who started smoking before age 16 had an OR of 14.3 (CI: 1–179) for cancer. A significant risk reduction was found for high levels of fresh fruit and vegetable consumption in females (0.08; CI: 0.01–0.8). The authors mention that there was a sub-group of young oral cancer patients, mainly female, in whom little exposure could be found to the major risk factors.

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ORTHODONTICS

Extractions as a form of interception in the developing dentition: a randomized controlled trial

Kau CH, Durning P *et al.* *J Orthod* 2004; **31**: 107–114

Extraction of canines reduced incisor crowding, but space for permanent successors was decreased.

One interceptive procedure designed to reduce lower incisor crowding is the extraction of primary canines. Clinicians are divided as to whether this is a worthwhile procedure. The present trial aimed at assessing its effects, and randomly allocated 55 patients aged 8–9 yrs in Italy, Germany and Wales to extraction, and 42 to retention of the teeth. There were 12 drop-outs, all in the retention group, mainly through subjects moving from their area of recruitment.

At recall, 1 to 2 yrs later, the mean Little's Index of incisor crowding had reduced from 11.8 to 5.8 in test subjects, and from 10.0 to 8.8 in controls. Respective mean arch length reductions were 3.16 and 0.43 mm, suggesting forward migration of molars. There was no difference between groups in inter-molar change, overbite change, overjet change and incisor inclination. Mean clinical crown height of the 4 incisors was significantly greater in the test group. The authors calculate a 25% chance of improving incisor regularity and a 5% chance of improving incisor alignment and arch length with canine extractions, and suggest that the procedure has questionable benefits.

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PERIODONTOLOGY; GASTROENTEROLOGY

Prevalence of *Helicobacter pylori* detected by polymerase chain reaction in the oral cavity of periodontitis patients

Gebara ECE, Pannuti C *et al.* *Oral Microbiol Immunol* 2004; **19**: 277–280

H. pylori was not found on the tongue, but was present in saliva and plaque in some patients who had it in their stomachs.

H. pylori is associated with gastric and peptic ulcers and gastric carcinoma. Triple therapy has 80–90% success in eradication of *H. pylori* from the stomach, but there is a problem of reinfection, and some studies have pointed to an oral reservoir of the organism. In this study, 30 subjects with *H. pylori* in the stomach and with problems both of the upper digestive tract and the periodontium were examined.

H. pylori was detected in the oral cavities of 13 patients. It was found free in saliva in 3 patients, in supragingival plaque from 6, and in subgingival plaque from 8. There was no significant association between periodontal status and the presence of *H. pylori* in the mouth or any habitat within it. The authors note that some oral bacteria produce proteins which inhibit *H. pylori*, and suggest that this is why some patients who have it in the stomach do not have it in the mouth. They consider that plaque-borne *H. pylori* may be a reinfection risk.

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