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ORAL MEDICINE

Effect of chlorhexidine gluconate rinse for treatment and prevention of oral candidiasis in HIV-infected children: a pilot study

Barasch A, Safford MM *et al. Oral Surg* 2004; **97**: 204-207

This may be a useful form of treatment.

Systemic antifungal agents may encounter resistant organisms and have severe side-effects in HIV +ve children. This study tested chlorhexidine (CHX) in 18 such children with +ve oral culture for *Candida* (mean CD4 count 474; clinical signs of candidiasis in 9 only), and 18 without (783; none); 2 others dropped out. No subjects received systemic antibiotic or antifungal treatment during the study. All subjects were instructed to rinse with 5 ml of 0.12% CHX once daily for 3 months.

Viral loads did not change over the period of the study. All three pseudomembranous lesions resolved, and 3 of 8 erythematous lesions. There were no signs of candidiasis during the study in any of the patients initially carrying the organism but without signs of infection. In 12 patients with good medication compliance (assessed by residuum in returned bottles of CHX), mean CFU (colony forming units) for *Candida* decreased from 6.2 to 2.7. The authors suggest that CHX is a useful treatment and should be studied further.

doi:10.1038/sj.bdj.4811567

ORTHODONTICS

The effects of early headgear treatment on dental arches and craniofacial morphology: a report of a 2 year randomized study

Mäntysaari R, Kantomaa T *et al. Eur J Orthod* 2004; **26**: 59-64

Treatment at 7-9 yrs reduced moderate crowding.

In this clinical trial, 34 gender-matched pairs of 7-year-old children with a tendency toward Class II malocclusion and moderate crowding were randomised to early headgear treatment (HG) or to control treatment (C) which included interceptive procedures such as primary tooth extractions and interdental stripping.

After 1 and 2 yrs' follow-up, the maxillary arch was significantly longer in HG (mean increases from baseline: 4.7 and 6.0 mm) than C subjects (0.2 and 0.2 mm). Differences were also found in the mandibular arch (2.1 and 2.4 mm; -0.4 and -0.5 mm). The width of both arches was also increased in HG subjects. Space gain in the lower arch was about half that of the upper. There was significant maxillary growth restraint and labial tilting of lower incisors in HG subjects.

doi:10.1038/sj.bdj.4811568

ORAL PATHOLOGY; EPIDEMIOLOGY

Clinical risk factors of oral leukoplakia in a representative sample of the US population

Dietrich T, Reichart PA *et al. Oral Oncol* 2004; **40**: 158-163

Smoking and diabetes were predictors of oral leukoplakia (OL) and oestrogen use tended to be inversely related.

This study examined data from the US NHANES III database. This survey of health and nutrition was designed to give data from a random sample of the civilian, non-institutionalised US population. OL according to WHO criteria was identified in 65 subjects, who were compared with 15,746 controls.

After multivariate logistic regression analysis, weighted odds ratios for OL significant at the 5% level were found for age 20-29 (0.16), smoking 11-20 (4.19) or >20 (6.01) cigarettes per day, diabetes (3.03) and higher income (0.73). When oestrogen use was removed from the model, male gender was also significantly associated (2.65). There was no case of OL among women who were using oestrogens, and all but 3 cases of OL in females were in subjects aged 50 yrs or older.

The authors conclude that tobacco smoking is the main factor responsible for OL, but advise that the role of diabetes and oestrogens should be examined in future studies.

doi:10.1038/sj.bdj.4811569

PERIODONTOLOGY; PULMONARY DISEASE

Cigarette smoking, periodontal disease, and chronic obstructive pulmonary disease

Hyman JJ, Reid BC *J Periodontol* 2004; **75**: 9-15

When smoking was taken into account, there was no significant association between the diseases.

Recent studies have suggested that smoking, which is a powerful environmental factor contributing to periodontitis, accounts for the association between periodontitis and a variety of other smoking-related diseases. This study was based on data from 7,625 subjects aged 30+ yrs in the NHANES III survey during 1988-94.

Chronic obstructive pulmonary disease (COPD) affects some 6% of the total US population. However, 13% of the study population, restricted as stated above, had COPD. Regression models stratified for smoking status showed that only those with very severe mean attachment loss (4+mm) had an increased risk for COPD. When smoking was treated as a confounder, the risk became non-significant. There was no significant relationship between mean probing depth (which represents the amount of inflammation rather than the loss of support) and COPD. The authors conclude that there is little likelihood of periodontal disease causing COPD.

doi:10.1038/sj.bdj.4811570