ABSTRACTS

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

ONCOLOGY

Squamous cell carcinoma of the oral cavity in patients aged 45 years and under: a descriptive analysis of 116 cases diagnosed in the South East of England from 1990 to 1997

Llewellyn CD, Linklater K *et al. Oral Oncol* 2003; **39:** 106-114

About 1/4 of cases had no obvious known risk factors.

During the study period, 404 individuals aged 45 yrs or under were registered with oral squamous cell carcinoma on the Thames Cancer Registry. Of these, 1/3 were deceased by 1999 and 197 were contactable. Of these, 116 responded to a postal questionnaire.

Responders were demographically similar to the whole group of 404 registered individuals, and 40% were from socioeconomic classes I and II. Mean age at diagnosis was 39 yrs. The tongue was the commonest site affected (39%).

Exposure to 1 or more known risk factors affected 75% of subjects: 3/4 were current or previous smokers; 1/3 drank alcohol over the recommended UK levels (female > 14 units/wk; male > 21 units/wk); 15 smoked cannabis and 4 chewed tobacco or betel quid. Two thirds were in families where first degree relatives had cancer. About 1/3 ate recommended amounts of fresh fruit and vegetables in the 10 yrs before diagnosis.

MICROBIOLOGY; ORAL MEDICINE

Oral microbiota associated with hyposalivation of different origins

Almståhl A, Wikström M *et al. Oral Microbiol Immunol* 2003; **18:** 1-8

Microflora variations relate to the reason for hyposalivation, rather than the effect itself.

In this study, the oral microflora was compared in 14 patients who had undergone radiation therapy (RT), 26 with primary Sjögren's syndrome (SS), 10 on long term neuroleptic medication (NM), 29 with hyposalivation of unknown origin (HU) and 36 controls (C). Mean age was around 54 years, with little variation between groups.

Total microbial counts were similar in all groups. NM had a mean 27% of streptococci, but HU had 60%, SS, 56%, and C, 49%. All 4 hyposalivation groups had significantly more lactobacilli than C, and the proportion was higher in RT. In RT, SS and NM, *Candida albicans* proportion was significantly higher. *Fusobacterium nucleatum* was lowest in NM. This group alone also had clearly visible supragingival plaque. The authors discuss the differing microbial ecology of the groups.

ORTHODONTICS; SOCIOLOGY

Social inequality and discontinuation of orthodontic treatment: is there a link?

Turbill EA, Richmond S *et al. Eur J Orthod* 2003; **25:** 175-183

Lower social class does not predict premature cessation of treatment, but is one of the risk factors.

In the UK, orthodontic treatment has been reported as discontinued by 12-25% of patients depending in part on where they are treated. This study compared characteristics of samples of 1431 completed and 160 discontinued cases from the General Dental Services of the NHS during 1990-1991.

Subjects in the discontinued group differed significantly from the completed group in several respects: mean age 10 months older, fewer treated with fixed appliances, more treated with extra-oral traction and fewer treated by practitioners with orthodontic qualifications.

Data on socioeconomic inequality showed significantly higher deprivation scores for certain indices, but not others, and the authors comment that since the regression model did not predict discontinuation, this factor is inappropriate for decisions on when to offer treatment.

PERIODONTOLOGY; EPIDEMIOLOGY

A hidden periodontitis epidemic during the 20th century?

Hujoel PP, Bergström J *et al. Community Dent Oral Epidemiol* 2003; **31:** 1-6

Tobacco smoking has substantially and disproportionately increased periodontitis in lower socioeconomic groups.

Using data from the large American NHANES III study, prevalence and incidence of advanced periodontitis were estimated for subjects aged 30-40. Tooth loss in this group was minimal and therefore unlikely to bias estimates.

In 30-34-year-olds, prevalence of advanced periodontitis was 1.44%, and in 35-39-year-olds, 2.28%. Mortality risk for 35-39-year-olds was 0.00994. Incidence was estimated at 0.17% per year, giving a risk of 7% of developing advanced periodontitis between the ages of 30 and 75 years. In this age group, the risk for a non-smoker was 3%, and for a smoker, 18%.

Smoking prevalence decreased from 1966 to 1998 by 8% in persons with no high school education, but by 43% in persons with college education. Incidence of periodontitis was closely related to smoking, education and gender. The authors estimate that elimination of smoking would cause a 68% decrease in advanced periodontitis.