

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

ORTHODONTICS; AESTHETICS

Smile aesthetics and malocclusion in UK teenage magazines assessed using the Index of Orthodontic Treatment Need (IOTN)

Mattick CR, Gordon PH *et al.* *J Orthod* 2004; **31**: 17-19

Teenage magazines portray orthodontic ideals rather than reality.

Orthodontic treatment is sought more for cosmetic than other reasons, and the media have a marked influence on teenage behaviour. Some readers of magazines – particularly females – may develop feelings of inadequacy in relation to appearance. A representative one month sample of all UK teenage girls' magazines was requested from a retailer and 84 photographs (66 female) were identified in which smiles appeared with enough details for an IOTN Aesthetic Component (AC) score to be assigned by two examiners. One subject wore a fixed appliance.

In 84%, the AC score was 1-4 (signifying no or little need for treatment), in 8% 5-7 (borderline need), and in 7% 8-10 (definite need). About 1/3 of this age group in the UK population is considered to have a definite need for orthodontic treatment. The authors note that a number of factors could have a bearing on the selection of photographs in the magazines, and conclude that the bias may help to drive adolescent anxiety.

doi:10.1038/sj.bdj.4811614

MOOD DISORDERS; SYMPTOMATOLOGY

Depressive symptoms in Asian TMD patients and their association with non-specific physical symptoms reporting

Yap AUJ, Chua EK *et al.* *J Oral Pathol Med* 2004; **33**: 305-310

Depression may be associated with complaints of non-specific physical symptoms (NPS) in this population.

Temporomandibular disorders (TMD) have shown association with depression in Caucasian populations, but there are limited data from Asians. In a Singapore hospital, data were collected from 255 patients (mean age 33 yrs; 68 male) in TMD clinics. The main ethnic subgroup was Chinese (82%), with the rest largely Malays and Indians.

When pain items were included, 126 patients were within the normal range for NPS scores, 62 had moderate symptoms and 67, severe; when pain items were excluded, respective numbers were 139, 54 and 62. There were 145 who were in the normal range for depression scores, 72 were rated moderate, and 38, severe.

Correlation between depression and NPS with pain items was 0.74, and without pain items, 0.72 ($P < 0.01$). There was no gender difference. The authors suggest that cognitive-behavioural intervention is more appropriate for those TMD patients with marked psychosocial impairment than biomedical therapy aimed at possibly nonexistent physical causes of the symptoms.

doi:10.1038/sj.bdj.4811615

ENDOCRINOLOGY; PERIODONTOLOGY

The effect of menstrual cycle on periodontal health

Machtei EE, Mahler D *et al.* *J Periodontol* 2004; **75**: 408-412

There was significant variation in gingival index despite little variation in plaque amount.

There have been previous reports of the effects of oestrogens and progesterone on the condition of periodontal tissues. In this study, 15 women not taking oral contraceptives or immunosuppressants, aged 24-49 yrs with a regular menstrual cycle (duration 22-35 days), and on a 3- to 4-monthly periodontal maintenance programme in an Israeli clinic, were examined at the estimated time of ovulation (OV), and before (PM) and during (M) menstruation, shortly before their next due maintenance visit. Another three failed to complete the study.

Mean plaque index, probing depth, recession and attachment level measurements did not vary significantly between the three examinations. However, there was a statistically significant variation in gingival index, from 0.54 at OV to 0.50 at PM and 0.38 at M. The authors relate this effect to serum oestradiol levels, which peak at OV and drop afterwards. They also discuss mechanisms by which the effect might be mediated.

doi:10.1038/sj.bdj.4811616

CARDIOLOGY; PERIODONTOLOGY

Periodontitis and coronary artery calcification: the Atherosclerosis Risk In Communities (ARIC) study

Nakib SA, Pankow JS *et al.* *J Periodontol* 2004; **75**: 505-510

Periodontitis did not even appear to be associated with atherosclerosis.

Some research has suggested that periodontal inflammation contributes to cardiovascular disease, but the apparent association has also been attributed to tobacco smoking which is a causal factor common to both conditions. Some investigators have strongly recommended studies in life-long non-smokers. In participants from the ARIC study, a sub-sample of 269 subjects was selected; these had received dental examinations and a cardiac CT scan for coronary artery calcification (CAC).

Subjects with attachment loss of 3 mm+ at 10% or more of periodontal sites were older and had smoked significantly more than those with <10% of sites affected. Subjects with a CAC score of 100+ were older, and more likely to be male, smokers, and on antihypertensive medication, and had a higher waist-to-hip ratio. Multiple logistic regression with these and other cardiac risk factors as covariates gave a non-significant odds ratio of 1.51 (95% CIs: 0.54, 4.23) for the association between periodontitis and CAC. Even if an association could be identified, the path of causality would also need to be demonstrated.

doi:10.1038/sj.bdj.4811617