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<th>Caries control programme for children in China: one year results</th>
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O-13 Early childhood caries (ECC) among pre-school children in Northern Philippines

This study was conducted to obtain baseline epidemiological data on early childhood caries (ECC) among pre-school children in Northern Philippines, to form the basis for formulation of specific oral health programs for Filipino pre-school children. The sample consisted of 933 children aged 2-6 years old (mean age 4.7 years) from Baguio City, San Juanico (Pangasinan) and Bontoc (Mt. Province). ECC was defined in this study as the occurrence of dental caries in any tooth/teeth surface. Caries experience was evaluated at the conclusion level following WHO guidelines for oral health surveys. Overall ECC prevalence was 91% (95% CI: 90.0%-92.0%), 65% (95% CI: 64.0%-66.0%) of children had 2-4 teeth involved. For 5-16 years of age, 15-17 years, were also asked in this report of their past medical history, to estimate the effect of risk factors associated with ECC among pre-school children in the Northern Luzon. Oral health programs emphasizing preventive measures and dental health education are urgently needed.

O-14 Caries control programme for children in China – one year results

Objective: The purpose of the study is to investigate the effectiveness of a 3.8% silver diamine fluoride solution (SDF) and a 5% sodium fluoride varnish (Duraphat) in preventing and arresting carious lesions in anterior primary teeth of preschool children in Southern China. Design: 375 children, aged 2-5 years, with caries in their upper anterior teeth were randomly allocated into 5 groups: control (SDF); A (SDF + 5% NaF varnish); B (SDF + 5% NaF varnish + 1% NaF paste); C (SDF + 5% NaF varnish + 1% NaF paste + 0.12% APF gel) and D (SDF + 5% NaF varnish + 1% NaF paste + 0.12% APF gel + 1% NaF paste). Results: The caries prevalence at baseline was 49.9% (95% CI: 46.9%-52.9%). After 1 year, the caries prevalence in group A was 34.4% (95% CI: 30.7%-38.1%), in group B was 25.4% (95% CI: 21.6%-29.2%), in group C was 17.0% (95% CI: 12.8%-21.3%) and in group D was 14.1% (95% CI: 9.9%-18.3%). The difference between group D and the other groups was statistically significant (P<0.05).

O-15 Caries and oral pain status among Malaysian drug addicts

Several studies have shown that oral pain due to dental caries can affect one's quality of life and also how one copes with the problem A descriptive study to look into the impact of pain due to dental caries was conducted among a group of randomly selected Malaysian drug addicts undergoing rehabilitation programme in 13 rehabilitation centres. Oral examination to determine caries experience and discussion questionnaire survey on pain status and coping were used as the measurement tools. This paper reports on the findings from 599 subjects who completed both oral examination and the interview-questionnaire. Results from the study show that 96% of the sample had caries. The mean DMFT was 8.8 (±6.6), the major proportion being contributed by missing teeth due to caries (4.3 ± 5.7). The mean MFPDS score at baseline and follow-up examinations at 6 and 12 months. Caries was diagnosed as present when there was a cavity with detectably soft dentine.

O-16 The prevalence and distribution of gingival recession in Thai elderly

The purpose of this study was to describe the prevalence and distribution of gingival recession in Thai elderly. As part of a longitudinal geriatric oral health study, 435 community dwelling dentate subjects, 51 to 92 years of age, were examined at baseline in 1999. All remaining teeth were measured on four periodontal sites to assess the amount of gingival recession. The percentage of surfaces with recession increased with age from 49.1% in 51-59 year olds to 60.6% in 60+ year olds (P <0.01). Males showed greater levels of recession than females (P<0.001). Regression analysis for the percentage of buccal surfaces with recession showed that recession was associated with age, sex, cervical abrasion, and location of calculus (R² = 0.143, p<0.001). These findings were consistent with the finding for all surfaces with recession did not find an association between recession and cervical abrasion. Hence, it appears that gingival recession on different locations may involve different processes. This study was supported by TRF grant No. RDG3/69/2541.

O-17 Factors Associated with Pain Experience of Patients after Periodontal Surgery

It is generally perceived that pain is a common occurrence following surgical procedures. There is little data on pain experience following periodontal surgery in the Asian population. The aim of this paper was to explore various factors that may be associated with pain experience following periodontal surgery. One hundred and twenty patients aged 15-71 were asked to report on their pain experience at periodic intervals 1-3 days following periodontal surgery. Pain was assessed according to the Visual Analog scale (VAS). All subjects were randomly given either Paracetamol 1000mg or Meprisin 250mg immediately following periodontal surgery as pain relief. Peak VAS clinical trial 1 hour post surgery. The VAS values subsequently decreased 1, 2 and 3 days following surgery. Factors that were considered were gender, age, type of surgical procedure, number of teeth involved, prescription of antibiotics and patients’ perception of pain. Results: There were no statistically significant differences between boys and girls, nor between subjects from the urban and rural areas (one way ANOVA, p=0.00). Results indicated a high prevalence of ECC among pre-school children in Northern Luzon. Oral health programs emphasizing preventive measures and dental health education are urgently needed.

O-18 Comparison of two analogues in controlling Post Operative Pain following Periodontal Surgery

Analgesics have been routinely given to patients following periodontal surgery. The aim of this study is to compare the relative effectiveness of two commonly used analogues in controlling post-operative pain. 102 patients aged 15-71 undergoing periodontal surgery participated in the study. Subjects were randomly divided into 2 groups. Immediately following periodontal surgery, one group received 1000mg Paracetamol and the other group received 250mg Meprisin (Pantam). Patients were asked to take further doses at 6-8 hourly intervals if necessary. Subjects were requested to record the perceived pain experience as measured by the VAS (Visual Analog scale) at 1 hour post surgery following each dose. Patients were then asked to record the Meprisin group as compared with the Paracetamol group after 2 hours, 4 hours and 6 hours post-operatively: at day 1 and day 2 respectively. The differences were however not statistically significant when analysed by Mann Whitney U test (P=0.05). When the scores of the individual group were compared separately, while VAS values immediately following surgery were significantly lower than during the subsequent hours for both groups (P<0.05); the discrepancies in VAS levels between the post-operative periods of 2 hours, 4 hours and 6 hours were more marked in the Paracetamol group than the Meprisin group. In conclusion, while no significant differences in VAS values were found between Paracetamol and Meprisin at the various time points following surgery, the results appear to indicate Meprisin may be more effective in reducing post-operative pain during the immediate post-operative periods. Due consideration should also be taken to other contributory factors which may explain the pain experience following periodontal surgery.

O-19 Protease Activated Receptors in Thrombin Induced Gingival Fibroblasts

Thrombin is a serine protease produced following gingival injury or inflammation. It regulates the functional behavior of neighboring cells via activating the specific protease- activated receptors (PARs). In the present study, we examined the effect of thrombin (PAR-1) agonist peptide (SFLRRN, TRAP-1, 1-50 μg/ml) stimulated the growth and clustering of human gingival fibroblasts (GF). Growth stimulation of thrombin may be inhibited by D-Phpe-Met-Leu-Phe (D-PMPD) (10 nM). The activity of OPN in response from the thrombin (1-50 μg/ml) was significantly (P<0.01) in the thrombin (10 μg/ml). The mean DMFT was 8.8 (±6.6), the major proportion being contributed by missing teeth due to caries (4.3 ± 5.7). The mean MFPDS score at baseline and follow-up examinations at 12 months. Caries was diagnosed as present when there was a cavity with detectably soft dentine.

O-20 Jatropha curcas l. inhibit collagenase release by fibroblast

Jatropha curcas (Euphorbiaceae) latex, among others is used traditionally for a mouth wash in bleeding gums, to cure toothache, and as an antifilarial in trauma. Bleeding gum is a sign of gingivitis or periodontitis where collagenase plays a role in its pathogenesis. The objective of this study was to investigate the effect of latex on the collagenase release by fibroblasts. Test material, human gingival fibroblast in primary culture, were incubated with jatropha latex (2.0 μl) containing 0.1% BSA added by 4 concentrations of latex (37.5 to 300 μg/ml) and 10 nM interleukin-1 beta to activate collagenase production. Following 1 to 4 days of incubation, supernatant was taken and stored at -20°C. Enzyme assay was performed using collagen as a substrate. The peak enzyme activity was obtained at dosing the 3.4-μA bands, which are characteristic of collagen breakdown, were measured semiquantitatively by Adobe Photo computer program.

The results show that there was a dose-dependent inhibition of increasing amounts of J. curcas latex narrowed the bands, which were no longer observed at 300 μg/ml latex. It is concluded that Jatropha curcas latex inhibited the release of collagenase by fibroblasts. The study was funded by RISBEN- IP-1999/11. Heli Fresenius was a recipient of the Ph.D. Physiologie Chemische, Johannes Gutenberg Universität, Mainz, Germany, for performing the study.