<table>
<thead>
<tr>
<th>Title</th>
<th>De/remineralization from different commercial dentifrices: a pH-cycling study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>Itthagrun, A; Wei, SHY; Wefel, JS</td>
</tr>
<tr>
<td>Citation</td>
<td>11th Annual Scientific Meeting of the International Association for Dental Research (Southeast Asian Division), Jakarta, Indonesia, 4-5 October 1996, v. 76 n. 5, p. 1219</td>
</tr>
<tr>
<td>Issued Date</td>
<td>1997</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://hdl.handle.net/10722/53721">http://hdl.handle.net/10722/53721</a></td>
</tr>
<tr>
<td>Rights</td>
<td>This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.</td>
</tr>
</tbody>
</table>
Distribution of Severe Periodontal Disease by Location, Age, and Ethnicity.

Objective: To investigate the oral microbiological and physiopathological status of post-inflamed nasopharyngeal carcinoma patients. Study design: 33 NPC patients (mean age 53.1 ± 10) who completed head and neck radiation therapy (30-35 GY post-operation) were screened for oral mucosal lesions. 52% of the subjects had no post-treatment irradiation dental. Stimulated whole saliva (SWS) flow rate, pH, buffer capacity, carriage rate of cariogenic micro-organisms, enamel etching, and plaque score were assessed. Results: The mean flow rate was 0.06 ± 0.04 (ml/min) and 58% had Candida. Both SWS pH (4.6 ± 0.6) and buffering capacity were low while Streptococcus mutans and Lactobacillus spp. carriage were extremely high (1.410 ± 2.0105 and 2.410 ± 2.7105, respectively). 70% of the subjects were found to be harboring at least one species of cariogenic bacteria, including Actinobacillus spp., 15%; Chryseobacterium indolgenes, 23%; Chromobacter freundii, 6%; Enterobacter cloacae, 18%; Escherichia coli, 3%; Flavimonas ornithinolytica, 3%; and Paracoccus aeruginosa, 12%. All subjects were carrying one species of yeast, namely Candida albicans, 73%, C. tropicalis 27%, C. famata, 3%, and C. parapsilosis, 3%. Conclusion: Oral mucosal lesion was found in 37% of 117 Hong Kong NPC patients studied, suggesting high risk for dental caries, incisors dissolution, and oral fungal infection. The risk of developing such disease appears to be very high, perhaps in part due to insufficient post-treatment dental care. This project was supported by CORD of Hong Kong.

Histochemical Finding of Embryonic Tooth Graft Caused by Fluoride Solution.

The aim of this study was to examine the role of fluoride in the development of enamel of rat's teeth. Pregnant Albino White rats at age 3 months divided in to 2 groups: CONTROL group (administered by isotonic solution); RAG group (administered by 0.2% NaF in 0.9% NaCl solution). Enamel in the preparation was obtained by LIGHT MICROSCOPIC. The fluoride content was analyzed by SPADAS ATTACK. The morphometric measurement was done with a histomorphometric instrument. Histological finding analyzed by LIGHT MICROSCOPIC. The result of the study was the fluoride content of tooth enamel of rat on day 10 and 15 control group v.s RAG group (p < 0.01). This difference was significant (p < 0.01). The result of histofluoroscopic embryonic tooth graft on day 15 and 10 control group v.s RAG group (p < 0.01). The finding of this study was that fluoride showed significant difference on fluoride content. This study was supported by the Ministry of Education and Culture, Indonesia Government.

Deoxinumeralization from different commercial dentifrices: a pH-cycling study.

A. NITHAGARJUN, S. H. K. WELIGE, and J. D. WELLIGE (Department of Pedodontics, Faculty of Dentistry, Gadjah Mada University, Yogyakarta, Indonesia).

The aim of this study was to examine the role of fluoride in the development of enamel of rat's teeth. Pregnant Albino White rats at age 3 months divided in to 2 groups: CONTROL group (administered by isotonic solution); RAG group (administered by 0.2% NaF in 0.9% NaCl solution). Enamel in the preparation was obtained by LIGHT MICROSCOPIC. The fluoride content was analyzed by SPADAS ATTACK. The morphometric measurement was done with a histomorphometric instrument. Histological finding analyzed by LIGHT MICROSCOPIC. The result of the study was the fluoride content of tooth enamel of rat on day 15 and 10 control group v.s RAG group (p < 0.01). This difference was significant (p < 0.01). The result of histofluoroscopic embryonic tooth graft on day 15 and 10 control group v.s RAG group (p < 0.01). The finding of this study was that fluoride showed significant difference on fluoride content. This study was supported by the Ministry of Education and Culture, Indonesia Government.


The aim of this study was to examine the relationship between smoking and the occurrence of severe periodontal breakdown in rural and urban Thai population. The retrospective epidemiological study was carried out in 200 rural (Payao) and 111 urban (Bangkok) male periodontitis patients (CPITN 4 subjects, both males and females). A set of questionnaires relating to smoking habits and number of cigarette smoking per day was completed by subjects. The findings showed that there were more smokers in rural (50.8%) than urban (30.4%) subjects (p < 0.001). But most of the urban subjects smoked 10-20 cigarettes/day (73.9%) whereas most of the rural subjects smoked less than 10 cigarettes/day (84.9%). There was no significant difference between the percentage of CPITN 4 person in smoking and non-smoking subjects in both the urban (27.8 ± 2.85) and rural (34.8 ± 5.67) groups. However, the prevalence of severe periodontitis was significantly different between urban and rural subjects (p < 0.001). The data indicates that severe periodontitis may not relate only to smoking habits but other risk factors that should be considered concurrently. Supported by Chulalongkorn University Rajadiprasok Sompop Research Fund.

Comparative Study of Diabetic and Non-diabetic Saliva.


Glucose and other components of saliva from diabetic and non-diabetic patients have been previously determined and compared. Yet, no conclusive results have been made. In this work, we analysed pH, flow rate, glucose, and total protein concentrations in diabetic and non-diabetic saliva and also studied the correlation among these activity and protein pattern under SDS-PAGE. The stimulated whole saliva samples were collected from twenty non-diabetic and forty non-insulin dependent diabetics between 7:00-8:00 a.m. The results indicated no significant difference between the two types of saliva except for that of total protein concentration. This work was supported by Dental Research Fund, Fac. of Dentistry, Chulalongkorn University.

Acid Resistance of Dentin and Enamel by Laser Irradiation.

A. Bahar, A. Garg, and T. J. Gottlow (Department of Preventive and Public Health Dentistry, Faculty of Dentistry, University of Toronto, Indiana, Jakarta, Indonesia).

The acid resistance of pit and fissure enamel in human dental enamel by using normal pulsed Nd-YAG laser was examined. Moreover, the pit and fissure of dental enamel using Nd-YAG laser was topically applied with a solution of acidulated phosphate fluoride (APF) after laser irradiation. The acid resistance of the pit and fissure enamel was evaluated by the amount of dissolved calcium per square millimeter of the surface area. The amount of dissolved calcium in acid solution was determined with an atomic absorption spectrophotometer. The area of pit and fissure exposed to the laser and acid solution were calculated by a three dimensional computed image analyzer. The laser irradiation caused about 40% acid resistance to the pit and fissure enamel. The combination of laser irradiation and APF application revealed greater acid resistance to the pit and fissure laser irradiation alone.

Antimicrobial Effect of Sesame to Candida albicans Growth on Denture.

E. WAIYUNYONGTA (Gadjah Mada University, Yogyakarta, Indonesia).

This research determined the antimicrobial effect of Sesame to Candida albicans' growth and the transverse strength of denture. Denture stream from inflamed mucous was cultivated on Sabraud's medium. Diffusion and well's method were used for sensitivity test. Sixty samples were divided into 4 groups concentration. The radial zone on each well was observed by imaging analysis. The sixty specimens of transverse strength were divided into 3 groups concentration (5%, 10%, and 15%). Each group was divided into 2 soaking duration (10 minutes and 10 hours). The transverse strength test was done by Universal Testing Machine. There was significant difference among Candida albicans' growth in different concentrations (p < 0.001). There was significant difference in transverse strength between concentrations and soaking duration (p < 0.001) as tested by ANOVA. Sesame had antimicrobial effect to Candida albicans' growth and it affected the transverse strength of acrylic resin in clinical tolerance.