<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Quantitative evaluation of composite bone graft healing in rabbits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Author(s)</strong></td>
<td>Rabie, ABM; Abbas, S; Cooke, MS</td>
</tr>
<tr>
<td><strong>Citation</strong></td>
<td>73rd General Session and Exhibition of the International Association for Dental Research, Singapore, 28 June-July 1 1995, v. 74 n. Sp Iss, p. 441</td>
</tr>
<tr>
<td><strong>Issued Date</strong></td>
<td>1995</td>
</tr>
<tr>
<td><strong>URL</strong></td>
<td><a href="http://hdl.handle.net/10722/54363">http://hdl.handle.net/10722/54363</a></td>
</tr>
<tr>
<td><strong>Rights</strong></td>
<td>This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.</td>
</tr>
</tbody>
</table>
321 Caries Inhibitory Effect of Fluoride Co-crystallized Sucrose - Establishing Field Trials
Mukhamble Poonia, A. M. Muntey

As the caries rate of children in Indonesia increases, a field trial has been established to assess the efficacy of a 1% fluoride sucrose gel to inhibit caries development in a group of children whose diet can be strictly controlled. The gel is applied to the teeth daily for 1 year. The study has been designed to evaluate the efficacy of the gel in preventing the development of caries lesions in the teeth. The results of this study will provide valuable information on the effectiveness of this new caries prevention method.

322 Chemical and Enzymic Disinfection of Carious Dentin. S. H. NORDO*, B. R. BELTZ & A. H. TIAN

The present study was designed to evaluate the efficiency of the gel in preventing the development of caries lesions in the teeth. The results of this study will provide valuable information on the effectiveness of this new caries prevention method.

323 An in Vitro Study of New Caries Dissolving Dyes.
G. G. Glow, S. K. C. K. DONALD, R. POYER

The aim of this study was to assess the specificity of three new dyes, to stain carious tissues. Fifteen freshly extracted carious primary and permanent teeth had the dyes removed using a slow-speed handpiece and a round bur (BUR 014). Caries was removed until the cavity was clearly visible, by means of a probe, to be caries free. One of the dyes was then applied to the cavity floor of 3 primary and 5 permanent teeth and removed from only half of the cavity, the other half acting as control. The procedure was repeated three times. The results showed that the dyes could be used to distinguish between carious and sound tissues in vivo. The method could be used to determine the microorganisms in both experimental and control cavities of the same painless cavity. Examinations of the sections showed that the dyes could be used to distinguish between carious and sound tissues in vivo.

324 Caries Removal in Primary Teeth Using Polished Nd:YAG Laser.

The aim of this study was to assess the efficiency of the Nd:YAG laser to remove caries from primary teeth. Twenty freshly extracted primary carious teeth, regardless of the size of the cavities, were treated using the Nd:YAG laser. Half the cavity was laser cavitated using the other half untreated. The exposed dentin was coated with 1% silver nitrate. The cavity was then filled with zinc oxide and eugenol. The results showed that the Nd:YAG laser could be used to remove caries from primary teeth effectively.

325 Non Invasive Treatment of Occlusal Caries. Results After 2 Years.

The aim of the study was to describe the 2-year results of an individualized treatment program designed to control occlusal cavities in the first permanent molars. The sample consisted of 147-68-year-old students divided in a control group (n=71) and a test group (n=78). The children of the control group were submitted to a preventive program based on patient education. All test children received a biannual basic preventive program and, a recall system according to individual status of caries and periodontal disease activity. The results showed that the low-fluoridated topical fluoride application could be an effective preventive measure to reduce the incidence of new carious lesions.

326 Intravenous Administration of Neuroactive Peptides Enhances Bone Formation. C. M. SHI & H. T. FENG

Neuroactive peptide—corticotrophin—related peptide (CGRP), substance P (SP) and vasoactive intestinal peptide (VIP) immunoreactive nerve fibers are co-localized in epithelial plate, periodontium, bone and bone marrow. Recent studies showed that CGRP plays a role in dentin mineralization and has neurotrophic stimulating effects both in vitro and in vivo. In addition, SP and VIP could enhance bone formation in vitro. The purpose of this study was to evaluate the potential of VIP and SP after intravenous administration. To this end, intravenous injection of VIP or SP was performed in rabbits. The results showed that the VIP or SP injections enhanced bone formation in vivo.

328 Quantitative Evaluation of Composite Bone Graft Healing in Rats. A. M. RABE, S. J. ABBAS & M. C. COHEN

To evaluate the healing capacity of composite intramembranous (IM) and of composite bone-bone and bone-IM bone tissue. The methods of composite bone graft healing were evaluated using four different methods: 1) Biochemical, 2) Histological, 3) Radiological, and 4) Clinical. The results showed that the composite bone grafts healed rapidly and achieved substantial bone regeneration.

Conclusions: 1) Image analysis is a reliable method for the quantitative measurement of bone induction. 2) Composite bone grafts with added dexamethasone showed a more bone formation than the grafts of bone alone. The bone grafts are effective and safe for bone reconstruction.