<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>The discharge of lubricant from dental air turbine handpieces</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Author(s)</strong></td>
<td>Pong, SM; Dyson, JE</td>
</tr>
<tr>
<td><strong>Citation</strong></td>
<td>The 13th Annual Scientific Meeting of the International Association for Dental Research (Southeast Asian Division), Kuala Lumpur, Malaysia, 1-3 October 1998. In Journal of Dental Research, 1999, v. 78 n. 5, p. 1174, abstract no. 39</td>
</tr>
<tr>
<td><strong>Issued Date</strong></td>
<td>1999</td>
</tr>
<tr>
<td><strong>URL</strong></td>
<td><a href="http://hdl.handle.net/10722/53790">http://hdl.handle.net/10722/53790</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>
Divisional Abstracts: Southeast Asia Division

33 In vivo Evaluation of Cheeses Using Intra-oral Cariogenicity Testing K.J. TOUMBA* and M.E.J. CURZON (Department of Paediatric Dentistry, Leeds Dental Institute, Leeds, UK)

Cheeses are frequently recommended as snack foods which are safe for teeth. The aim of this study was to investigate the degree of cariogenicity of discrete cheese slices after exposure to four different cheddar cheeses using the intra-oral cariogenicity test of Koulourides et al (1976). Four cheddar cheeses were used in this study: slices, block, spread and toots. 10% sucrose and 10% sorbitol solutions were used as positive and negative controls, respectively. Five adult volunteers with a DMFS score of 212 wore a lower removable appliance with one guaze covered human enamel slab (3mm x 3mm) fixed to each molar tooth. A baseline microhardness (SMH) test was performed for each enamel slab using a Knoop diamond with a 10µg load. Each volunteer was instructed to immerse the appliance in the test or control solutions for 10 mins four times daily for a period of five days. 10g of the test cheeses were chewed by the volunteers for 60 secs to obtain a cheese/saliva slurry which was used to cover the enamel slabs for the 10 mins immersion periods. SMH testing was repeated after the five day test periods. The mean DMFT differed in each cheese formulation, the primary differences in the two tests were the caries potential and how this could be regarded as safe for teeth.

34 The pattern of caries attack and implications for caries control in 16-year-old schoolchildren R ABU-KASSIM**, M N AJJARFAR** (Ministry of Health Perlis, Malaysia) and C of Community Dentistry University of Malaya

Most national surveys of dental caries report the prevalence and mean experience using the DMFT and DMFS index. However these indices do not monitor the changing patterns of caries attack when overall caries start to decline. Consequently, the impact of restorative policies to reduce the DMFT cannot be estimated. The aim of the study was (1) to determine the caries experience using the DMFT index and (2) to identify the predominant pattern of caries attack with a view to find their effect on treatment at a national level. The sample consists of 648, 16-year-old Malay schoolchildren in Perlis, taken from 5 randomly selected schools. Two schools were urban and 3 were rural. Clinical examination for caries attack of DMFT and the patterns of caries attack were recorded for each child. The mean DMFT was 3.43 (sd 3.04) and DMFS 5.14 (sd 5.65). This may considered low for a 16 year old group. However, only 18.8% were caries-free. Almost all restorative treatment needs had been met (90.4%). The bigest contributor to the DMFT index was from the F component (92%). Most of the characteristics were concentrated on molar teeth (77.2%). More than two-thirds of the teeth (67.5%) were exclusively occlusal. DMFS was significantly increased compared to a pit and fissure origin. Most of the restorations (87.3%) were simple (one surface restorations). The most common material used for restorations was amalgam (86%).

35 Design of a Self-contained Apparatus for Air Turbine Handpiece Testing, R.H. DARWELL and J.E. DYSON* (Dental Materials Science and Oral Rehabilitation, Faculty of Dentistry, University of Hong Kong, Hong Kong)

The longevity of dental air turbine handpiece bearings has been of concern for a long time, but with routine autoclaving now the norm the focus of this concern becomes a major selection criterion. A satisfactory method of testing the air turbine handpiece is therefore needed. The variables relevant to dental air turbine handpiece testing have been identified by Dyson & Darwell (1997). The measurement of these, however, requires expensive equipment and considerable expense and manpower. The approach which this paper proposes, is to develop a simple, inexpensive machine which can be incorporated into the clinical setting and used to test the handpiece through the application of the procedure in a real service test. The equipment will have a variety of other applications in standards compliance testing, design development, and maintenance checks.

This work was supported by The University of Hong Kong CROG grant nos. 335.250.0001 and 335.255.0002.

36 The Proportion of Partial Denture Patients Attending an Academic Institution, S.B. KANG* and P.L.L. POH (Faculty of Dentistry, National University of Singapore)

Patients who exhibit periodontal disease require the replacement of lost teeth to restore oral function and appearance. The type of patients seen together with the clinical conditions they present will provide useful information to assist prosthetic treatment planning. The aim of this study was to obtain basic information as regards to the presenting clinical conditions in the mouth together with the status of prostheses in use. 310 clinical hospital denture patient records were randomly selected for the study. The data collected were from patients presenting to the School of Dental Surgery, University of Hong Kong. The following related information were grouped together and extracted for the study:

1) Patient: face form, tooth formation, history, age, sex, handedness, race, and previous treatment received.
2) Occlusion: DPO findings, occlusal status, facial lines, bite relations, jaw joint and TMJ, and facial symmetry.
3) Clinical Condition: occlusal classification, alveolar ridge bone, and alveolar bone condition.

44 Design of a Self-contained Apparatus for Air Turbine Handpiece Testing, R.H. DARWELL and J.E. DYSON* (Dental Materials Science and Oral Rehabilitation, Faculty of Dentistry, University of Hong Kong, Hong Kong)

The longevity of dental air turbine handpiece bearings has been of concern for a long time, but with routine autoclaving now the norm the focus of this concern becomes a major selection criterion. A satisfactory method of testing the air turbine handpiece is therefore needed. The variables relevant to dental air turbine handpiece testing have been identified by Dyson & Darwell (1997). The measurement of these, however, requires expensive equipment and considerable expense and manpower. The approach which this paper proposes, is to develop a simple, inexpensive machine which can be incorporated into the clinical setting and used to test the handpiece through the application of the procedure in a real service test. The equipment will have a variety of other applications in standards compliance testing, design development, and maintenance checks.

This work was supported by The University of Hong Kong CROG grant nos. 335.250.0001 and 335.255.0002.

37 The Pattern of Caries Attack and Implications for Caries Control in 16-Year-Old Schoolchildren in Malaya R ABU-KASSIM*, M N AJJARFAR* (Ministry of Health Perlis, Malaysia) and C of Community Dentistry University of Malaya

Most national surveys of dental caries report the prevalence and mean experience using the DMFT and DMFS index. However these indices do not monitor the changing patterns of caries attack when overall caries start to decline. Consequently, the impact of restorative policies to reduce the DMFT cannot be estimated. The aim of the study was (1) to determine the caries experience using the DMFT index and (2) to identify the predominant pattern of caries attack with a view to find their effect on treatment at a national level. The sample consists of 648, 16-year-old Malay schoolchildren in Perlis, taken from 5 randomly selected schools. Two schools were urban and 3 were rural. Clinical examination for caries attack of DMFT and the patterns of caries attack were recorded for each child. The mean DMFT was 3.43 (sd 3.04) and DMFS 5.14 (sd 5.65). This may considered low for a 16 year old group. However, only 18.8% were caries-free. Almost all restorative treatment needs had been met (90.4%). The bigest contributor to the DMFT index was from the F component (92%). Most of the characteristics were concentrated on molar teeth (77.2%). More than two-thirds of the teeth (67.5%) were exclusively occlusal. DMFS was significantly increased compared to a pit and fissure origin. Most of the restorations (87.3%) were simple (one surface restorations). The most common material used for restorations was amalgam (86%).

In this pattern of caries attack, it is thought that to reduce the DMFT index in this population, the best strategy is to concentrate on the prevention of pit and fissure caries such as applying fissure sealants to the molars within the first three years after eruption.

38 Design of a Self-contained Apparatus for Air Turbine Handpiece Testing, R.H. DARWELL and J.E. DYSON* (Dental Materials Science and Oral Rehabilitation, Faculty of Dentistry, University of Hong Kong, Hong Kong)

The longevity of dental air turbine handpiece bearings has been of concern for a long time, but with routine autoclaving now the norm the focus of this concern becomes a major selection criterion. A satisfactory method of testing the air turbine handpiece is therefore needed. The variables relevant to dental air turbine handpiece testing have been identified by Dyson & Darwell (1997). The measurement of these, however, requires expensive equipment and considerable expense and manpower. The approach which this paper proposes, is to develop a simple, inexpensive machine which can be incorporated into the clinical setting and used to test the handpiece through the application of the procedure in a real service test. The equipment will have a variety of other applications in standards compliance testing, design development, and maintenance checks.

This work was supported by The University of Hong Kong CROG grant nos. 335.250.0001 and 335.255.0002.

39 Design of a Self-contained Apparatus for Air Turbine Handpiece Testing, R.H. DARWELL and J.E. DYSON* (Dental Materials Science and Oral Rehabilitation, Faculty of Dentistry, University of Hong Kong, Hong Kong)

The longevity of dental air turbine handpiece bearings has been of concern for a long time, but with routine autoclaving now the norm the focus of this concern becomes a major selection criterion. A satisfactory method of testing the air turbine handpiece is therefore needed. The variables relevant to dental air turbine handpiece testing have been identified by Dyson & Darwell (1997). The measurement of these, however, requires expensive equipment and considerable expense and manpower. The approach which this paper proposes, is to develop a simple, inexpensive machine which can be incorporated into the clinical setting and used to test the handpiece through the application of the procedure in a real service test. The equipment will have a variety of other applications in standards compliance testing, design development, and maintenance checks.

This work was supported by The University of Hong Kong CROG grant nos. 335.250.0001 and 335.255.0002.