63

Cytotoxicity of Polyester to Human Cultured Lymphocytes.
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Acrylic resin has been the only polymeric denture base material. According to Tsuchiya et al. (J Prosth Dent 71 : 618-630, 1994), residual monomer (polymethyl methacrylate) elicits irritation of the oral mucous. Siswomihardjo (preliminary study, 1994) states that polyester, a polymeric material for statues, can be manipulated to denture base. This study examined the cytotoxicity of polyesters to cultured human lymphocytes. Specimen of polyesters soaked in human saliva for 24 hours during a period of 7 days. Seven dishes of cultured human lymphocytes were treated with 5 % human saliva (polyesters' soaking solution), and one dish as control. After 24 hours incubation, the number of living lymphocytes were counted by a haemacytometer. Data analyzed by the Anova showed no significant influence of soaking period on the cytotoxicity of polyesters ($p>0.01$). It can be concluded that in a period of 7 days, polyesters denture base will not cause toxic effect.

64

Water Storage Effect on Diametral Tensile Strength of Glass Ionomers.
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The objective of this study was to measure the diametral tensile strength (DTS) of resin-modified glass ionomer (RMGI) and conventional glass ionomer (GI) restorative materials after stored in water over time. Eighty disk (6x3 mm) samples were made of IonositFil (RMGI) and AlphaFil (GI). The RMGI was photocured for 40 seconds. The samples were stored in distilled water at 37°C for 1 day, 1 week, 4 weeks, 8 weeks and 12 weeks. The DTS was measured by Universal Testing Machine at crosshead speed of 0.5 mm/min. The mean and standard deviation of DTS (kg/cm^2) were :

Water Storage	IonositFil	AlphaFil
1 day	119.4 ± 7.2	72.8 ± 10.5
1 week	119.6 ± 6.9	79.4 ± 11.2
4 weeks	128.2 ± 13.5	105.5 ± 7.7
8 weeks	138.5 ± 18.0	108.4 ± 8.7
12 weeks	173.1 ± 10.1	111.3 ± 16.4

Anova and HSD-test were done. The RMGI had higher DTS than GI ($p<0.01$). The DTS of RMGI increased from 8 weeks to 12 weeks and GI from 1 week to 4 weeks ($p<0.01$). In conclusion, the glass ionomers did not show any loss after stored in distilled water up to 12 weeks.

65

The Interface between Affected Dentine and Resin-Modified Glass-ionomer.
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Dentine remaining after chemomechanical caries removal by N-monochloro-D,L-2-aminobutyric acid (NMAB) and urea containing NMAB (NMAB-Urea) was considered sound by clinical criteria. Studies using scanning electron microscope and electron probe microanalysis have showed that the cavity floor, i.e. affected dentine, after complete caries removal to be of similar mineral content as the underlying sound dentine (Caries Res 1995;29:111-117). The aim of this study is to use the confocal laser scanning microscopy (CLSM) to study the bonding interface between affected dentine and resin-modified glass-ionomer. Carious dentine was removed chemomechanically from carious lesions by means of NMAB and NMAB-Urea. Teeth in which complete caries removal was deemed to have been achieved by normal criteria were restored with resin-modified glass-ionomer (Vitremer). Fluorescent dye (Rhodamine B) was incorporated into the primer and applied onto the cavities according to manufacturer's instruction prior to restoration. A control cavity of the same depth as the carious lesion was prepared using the rotary instrument on the opposite side of the solution-treated cavity. All the control cavities were restored with composite (Z100). Black sections and thin sections (100-120μm) were prepared from the specimen teeth and examined under scanning electron microscope (SEM) and confocal laser scanning microscope (CLSM). The superficial layer of dentine remaining on the cavity floors appeared to have a very uneven with many undermined areas. The primer of the resin-modified glass-ionomer penetrated non-uniformly into dentinal tubules of the affected dentine while the pattern of penetration was much more uniform in control cavities. The results indicated that the bonding interface between resin-modified glass-ionomer and affected dentine was different from that of sound dentine.

66

Biological evaluation on glass ionomer cement using tissue culture.
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The use of materials endodontic treatment must consider the biological effects of materials on the dental pulp. Eventhough it has been recommended as a filling lining material, using it as a sealer is not popularly known. That is why this research has been conducted to find out the difference between the biocompatibility effect of glass ionomer materials and the calcium hydroxide material by tissue culture method using BHK 21 (C-13) cell lines. Twenty-eight specimens of glass ionomer material and calcium hydroxide materials were divided into 2 groups and control group. These specimens were put into 24 well's culture tube and BHK 21 (C-13) cells were added into each well. These cells were harvested after 24 hours and the toxic effects were observed by counting the dead cells compared with the living cells. The t-test analysis showed that there was no significant difference ($p > 0.05$) between the biocompatibility value of glass ionomer material group (92,7410 ± 4,5596) and calcium hydroxide material group (94.3090 ± 2,9475). It can be concluded that the biologic effect of the glass ionomer cement was similar to that obtained in the calcium hydroxide cement by tissue culture. This finding suggests that the tested glass ionomer cement can be used to replace calcium hydroxide cement as a sealer for obturated roots.

67

Biotypes of Oral *Candida albicans* Isolates in a Tanzanian Child Population
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Although biotypes of *Candida albicans* from adult populations, especially in the West, have been described, there are no data either from a child population, or from the African continent. Hence a total of 200 oral *C. albicans* isolates from Tanzanian children aged 6-24 months, were biotyped using two commercially available API micromethod kit systems and a boric-acid resistance test (Williamson, Samaranayake & MacFarlane, *Microbios* 51:159-167, 1987). The predominant biotypes, which comprised two thirds of the organisms isolated were, J1S (19.5 %), A1S(16.0 %), J1R (14.5 %), A1R (9.5 %) and P1R (7.5 %). In total 16 new biotypes comprising 44 (22 %) isolates, which have not been described hithertofore were found in this Tanzanian population, and of these, P1R biotype predominated with 15 (7.5 %) isolates. There was no significant association between predominant biotypes (with clusters > 15 isolates) and the age, gender, breast feeding, and malnutrition. These data together with our previous studies in healthy adults from China (Xu & Samaranayake, *Arch Oral Biol* 40: 577-579, 1995), and HIV-infected individuals from Hong Kong, UK, Germany and Australia (Tsang *et. al. J Oral Pathol Med* 24: 32-36, 1995) indicate i) biotype profile of *C. albicans* isolates may differ in paediatric and adult populations, and ii) global distribution of various sub-types of this commonopportunist pathogen.

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68

The Prevalence, Distribution and Identification of Oral Candida in Smoker.
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The aims of this study were to determine the prevalence, distribution and identification of oral Candida in 47 non-smokers and 64 smokers by using imprint culture for the isolation. The identification of Candida was carried out according to Mc. Ginis and Beneke and also the modified criteria of Kreger-van Rij for final identification. The prevalence of Candida in smoker (85 percent) was significantly higher than in non-smoker (48.44 percent) ($p < 0.001$). The mucosal site from which Candida was most often isolated was the posterior dorsal tongue and the floor of mouth was the least one in both groups. C. albicans, C. parapsilosis and C. tropicalis were mostly identified in each groups. The highest isolation in non-smoker was C. albicans (69.56 %) whereas in smoker, C. parapsilosis was found mostly (60.78 %). In smoker, more Candida species were identified than in non-smoker. It can be concluded that tobacco-smoking influences the oral Candidal carrier rate. More Candidal species were found in smoker. This study was supported by Tantaraksa Research Foundation, Thailand.

69

Effect of Mouthwash on Bacteremia Cases of *S. viridans* Post Extraction.
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Bacterial endocarditis caused by *S. viridans* bacteremia post extraction has been reported. The effect of 0,1% Hexetidine mouthwash on *S. viridans* bacteremia post 3rd molar malposition extraction was examined in this study. Subjects' criteria were; 20 - 25 yrs; OHI-S < 2 ; gingivitis (-); periodontitis (-); not under antibiotic treatment; 3rd molar carries free and vital. Twenty six adults were divided randomly into 2 groups of 13 each.The control group rinsed with saline solution for 30 seconds.The experimental group rinsed with 0,1% Hexetidine for 30 seconds. Third molar extractions were done in sterile condition and required no longer than 3 minutes. To identify *S. viridans*, samples were taken from plaque and blood. Plaque was taken by scalers and pooled in two starter broth media, each incubated in aerobic and anaerobic conditions. Blood was drawn 5 minutes before extraction this was followed with blood drawn 5 minutes and 10 minutes post extraction. One cc of blood from each draw was pooled in BHI broth and incubated aerobically. Five cc of blood from each draw was pooled in 'Roche' blood culture and incubated anaerobically. The results showed that *S. viridans* bacteremia 5' post extraction from control group was 11/13 cases and experimental group was 5/13 cases. *S.viridans* bacteremia 10' post extraction from control group was 8/13 cases and experimental group was 3/13 cases. This results statistically were significant different ($p < 0,05$). The conclusion 0,1% Hexetidine was significant to reduce *S. viridans* bacteremia in selected population.

70

Functional Rehabilitation by Metal Reconstruction of Post Operative Mandibles
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One of the choices in the treatment of mandibular bone Ameloblastoma is mandibular resection. In such a case, rehabilitation/reconstruction is expected to restore the mandible functions, which include kinesiology, masticatory, phonetics and aesthetics. One alternative device to be used for mandibular rehabilitation/reconstruction is individual metal framework made of Cobalt Chromium casting.
The present research is based on 16 clinical cases consisting of 8 cases of hemimandibulectomy and 4 cases of partial mandibulectomy, all of which were rehabilitated by means of individual metal framework made by the researcher, and 4 cases of hemimandibulectomy using factory made metal framework as a control group. After the rehabilitation, we gave a regular training program and conducted clinical testing on the mandibular functions using 14 variables. From the 14 variables tested, there was one which showed a statistically significant difference. This particular variable is Chewable foods. All the other variables proved to be homogenous.
The rehabilitation/reconstruction of the mandible using individual metal framework made of Cobalt Chromium may restore the mandibular functions at least as well as does the factory made framework. In fact, by using individual metal framework made of Cobalt Chromium casting subjects can chew the foods better.