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<th><strong>Title</strong></th>
<th>A randomized controlled clinical trial of home tooth-whitening products</th>
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VP-2  The effect of Glycinisomngiales on palatal fibroblast activities.  X. H. ZOU, W. C. F. HOONG, G. W. YIP, T. CAO, R. B. BAY. (Faculty of Dentistry, University of Hong Kong, Hong Kong)  This study aims to investigate the effect of sulfated glycinisomngiales (GAGs), especially Heparan Sulfate (HS) and Chondroitin Sulfate (CS) on rabbit palatal fibroblast activities. Two stages of experiments were carried out on pregnant 24-old New Zealand White female rabbits (n=6). During the first stage of experiments, fibroblasts were cultured with and without 30μM chondroitin sulfate. Sulfated GAGs (in the medium were quanitified). 2. Fibroblasts were treated with 5mM cholarate, 5mM cholarate with 100μM HSL; 50mM cholarate with 100μM CS; or normal culture medium. Cell adhesion was quantified by MTS assay at 4, 6, 8 and 10 hours after cell seeding. Cell proliferation was assessed by the MTT and cell migration was assessed by the Transwell at 4, 6, 12, 18 and 24 hours after cell seeding. The results were analyzed by the experimental procedure. The data was analyzed by-analysis of variance (ANOVA). The results indicated that the concentration of GAGs significantly affected cell adhesion and proliferation at different time points. The concentration of GAGs and the time of treatment affected cell adhesion and proliferation. However, the results were not significant. The concentration of GAGs and the time of treatment affected cell adhesion and proliferation. However, the results were not significant.

VP-5  Expression criteria for p16(Ink4a) in oral Squamous Cell Carcinoma tumors. Amna GHANEM, AGUIAR AM, AMAYA J, AYAGA A, CORNEAL S, ETO K, REDDI MAA*, FACULTY DENT, UNIV OF INDIANA, FACULTY OF MED, UNIV OF INDIANA** SC McCormick School of Dentistry, Indiana University, Indianapolis, Indiana, USA  To improve the clinical outcome of oral squamous cell carcinoma (OSCC), additional prognostic indicators have been sought in recent years. The retinoblastoma gene (Rb) tumor suppressor gene is a critical regulator of the cell cycle and is considered a tumor suppressor gene. Overexpression of the Rb gene is one of the most frequently altered tumor suppressors in cancer cells, including OSCC. Loss of p16 expression due to gene deletion provides a robust and reliable index of cell proliferation and tumor progression. However, by being a cell cycle regulatory gene, p16 expression is often downregulated in cancer cells, but its role in OSCC has not been commonly studied. As a result, p16 expression is often not used as an additional prognostic factor in OSCC. In this study, 24 OSCC tumor tissues were examined for p16 expression. The results indicated that p16 expression was significantly downregulated in OSCC tissue samples compared to normal tissue. The downregulation of p16 was more pronounced in OSCC tissue samples with higher tumor grade.

VP-3  Innovative Tools for Early Oral Cancer Detection - Chemoimmunocenters and LED. R. SARAVANAN* and C. ILIR. SARR (Faculty of Dentistry, University of Malaya, Kuala Lumpur, Malaysia)  Innovative cancer research has led to the innovation of contemporary diagnostic tools for early oral cancer detection. ViziLite™ and glowsheets based on the principle of 'chemoimmunocenters' and Light Emitting Diodes (LED) are the latest diagnostic tools available for this purpose. The objective was to evaluate the potential value of chemoimmunocenters (ViziLite™ and glowsheets) and LED as tools for the early detection of oral cancer, dysplasia and potentially malignant epithelial lesions (PME). The efficiency of these tools was assessed in terms of sensitivity, specificity and accuracy. A sample of 67 subjects aged 35 years and above, with a history of habits including smoking, alcohol consumption and at least one oral lesion, was studied. In the remaning 16 subjects, a biopsy was performed due to subjects' ill-health. The biopsy results were correlated with the clinical observations, the sensitivity, specificity and accuracy were calculated. The findings are as follows:

- ViziLite™
  - Sensitivity: 90.6%
  - Specificity: 95.8%
  - Accuracy: 93.1%

- Glowsheets and LED
  - Sensitivity: 86.5%
  - Specificity: 95.8%
  - Accuracy: 93.1%

VP-6  The Differences of Saliary Urea Level in Caries and Caries-Free Patients. ANNA MUSHLIHALAB, YENNY ARENANTY, TRINI HARTINI, ROHINDO OTOMIO ROBLAN (Faculty of Dentistry, Trisakti University, Jakarta, INDONESIA)  Urea acts as a buffer in the saliva especially when decreasing of pH occurs under critical value pH 5.5. anodal (55.5) and alkaline (55.5) levels are less susceptible to demineralization. Salivary urea is a protein responsible for buffering the acidity. The aim of this study was to investigate the difference of saliary level in caries present and caries-free cases. Urea level in saliva of 16 caries patients and 16 caries-free were measured by using spectrometer at 325 wavelength. The results indicated that the urea level of caries patients was significantly higher (p<0.001) than that of caries-free group (2.9±2.2 mg/dl). This was significantly lower than that of caries-free (1.2±0.8 mg/dl) which means the decreasing of saliva pH will be balanced by the increasing of saliary urea level. It can be concluded that saliary urea level can be used as indicator of caries possibility.

VP-7  A randomized controlled clinical trial of home tooth-whitening products. A. H. LING, C. C. M. NGUYEN, C. C. M. NGUYEN. (Faculty of Dentistry, The University of Hong Kong, Hong Kong SAR, CHINA)  Purpose: To evaluate the effectiveness of two marketed home tooth-whitening products. Materials and Methods: A randomized controlled clinical trial involving 97 adults who were randomly allocated into one of three groups: (a) 6% hydrogen peroxide whitening strips (Essel White, P&G); (b) 38% carbamide peroxide whitening gel (Simple White, Colgate); and (c) a placebo (fluoride toothpaste) control group. The products were professionally dispensed and subjects were instructed individually in the correct way of using the given product. They then used the given product daily for two consecutive weeks. Color was determined in brightness (L*), yellowness (b*) and redness (a*) colour space at baseline and 8 weeks after whitening. Results: The products were effective in improving tooth color. A statistically significant difference in tooth color was observed in both the experimental groups and the placebo group. The results were as follows:

- Group A (Essel White): L* 54.6, b* 12.3, a* 5.0
- Group B (Simple White): L* 56.2, b* 11.0, a* 4.7
- Placebo: L* 53.1, b* 13.7, a* 5.9

VP-4  Clinical-pathological Study of Oral Premalignant Lesions and Conditions in Myanmar. MOE THA THA, ZOE WAC WON and BY MAYN (Department of Oral Medicine and Pathology, Institute of Dental Medicine, Yangon, Myanmar)  Conventional microscopic study of grade of epithelial dysplasia widely used method of evaluating malignant potential. The purpose of this study was to determine the clinical-pathological status of oral premalignant lesions and conditions, and to determine the histological features including grade of epithelial dysplasia. All the archived formalin fixed paraffin embedded histopathological specimens of oral premalignant lesions and conditions which collected from Institute of Dental Medicine, Yangon and stained with H&E. Among 70 cases, leukoplaikia (n=25) was the most common, followed by oral lichen planus (n=23) and oral lichen sclerosis (n=23). As for the grade of dysplasia, severe epithelial dysplasia was noted in 8 cases, moderate epithelial dysplasia in 25 cases, and mild epithelial dysplasia in 18 cases (p<0.001). These observations suggested that leukoplaikia might be more frequent potential to malignant transformation than oral subacute dysplasia and oral lichen planus. Therefore, the patients with premalignant lesions and conditions should need to get early detection by means of histological diagnosis.