17 Short-term Clinical Effects of Minocycline Strips in Treatment of Adult Periodontitis J. Sun, L. Jian, W.K. Liew, E.F. Corbet. (Faculty of Dentistry, The University of Hong Kong, Hong Kong)

A double-blind randomized parallel trial is being conducted to evaluate the short- term clinical effects of local application of Minocycline strips in residual pockets of patients with periodontitis, who had received initial non-surgical periodontal therapy. The participants are 32 non-smoking, drug-free, adults aged 33-63 years and with a probing pocket depth of 4 mm or more. They were randomly assigned to one of two groups: (a) minocycline strip or placebo strip, and (b) control group. The clinical measurements included probing pocket depth and bleeding on probing and were performed at baseline and at 3 and 6 months. The results will be discussed.

18 The Effect of Human Mixed Saliva on the Cell Surface Hydrophobicity of Candida species W. Lee*, S.K. Cheung, M.K. Goh, C.L. Liu, T.C. Wong, W. Yuan & L.P. Samaranayake (School of Dentistry, University of Hong Kong, Hong Kong)

Adhesion to host surfaces is an essential prerequisite for successful infection by the human fungal pathogen Candida, and a key event mediating adhesion is the hydrophobic interactions between the fungal and the host tissues. Despite the fact that all oral surfaces are covered by a ubiquitous salivary film there is no data on the effect of this film on the adhesiveness of Candida species. Hence we investigated the effect of pooled and single, mixed, human saliva on the relative CSF of 3 isolates of Candida obtusa (C. albicans, C. glabrata and C. parapsilosis). Human saliva was collected from three healthy young adults and used in the experiments as single and pooled samples throughout the study. The hydrophobic assay of Sweet, Macfarlane and Samaranayake (FEBS Lett. 237:109 (1987)) was used to measure the relative adhesivity of Candida species to the glass front-plate. Saliva was pre-exposed to saliva and unscreened, control organisms. Briefer, the biphasic hydrophobic assay comprised evaluating the relative adhesivity of the different microbial populations present in saliva. Results suggest that pH and single saliva significantly increase the relative CSF of C. glabrata and not the other species (p < 0.05). Further the CSF of C. parapsilosis isolates was also elevated when pre-exposed to a single saliva sample. Significant inter species variations in CSF was also noted between C. glabrata and both C. braunii and C. parapsilosis when pre-exposed to single as well as pooled saliva. These results indicate that human mixed saliva modulates the CSF of Candida species to a significant extent, a fact which should be borne in mind when conducting in vitro evaluation of CSF of these and possibly other species.

19 The microbiological profile of asymptomatic root canal failures — preliminary results J.W. Ho, C.P. Cheung* (Faculty of Dentistry, The University of Hong Kong, Hong Kong, SAR, China)

This study is aimed at investigating the microbiological profile of root canal failures in the Hong Kong Chinese population. Eighty-five canals which had been endodontically treated for more than 4 years and presented with an acceptable coronal restoration but showed radiographic evidence of periradicular lesions, were sampled. Bacteria adhering to the root canals were identified by the method described by Miller (1966). After removal of the root filling material, a sample was taken using sterile paper points and transplanted onto the selective media. The microbiological profile was determined to include endodontic-Throspot, Toly Sure Agar (ETSA) and selective media for incubation both in a carbon dioxide enriched environment and anaerobically at 37°C. The bacterial colonies were counted after 1-2 weeks and 2-3 weeks on the selective media. The bacterial genera recovered were identified by growing the isolated colonies on selective media. The colony formation and the organisms were identified using the Gram stain, cultural characteristics, sensitivity to the antibiotics and their identification. The bacteria isolated from 31 out of 46 canals were excluded due to contamination of the media or incubation point. Three other canals that were found to be contaminated with the bacteria were also identified. Seven out of the 12 sulfa-penicillin filled canals contained cultivable bacteria. The range of total colony forming unit was 0 to 2.3 x 10^6 and the median was 3.6 x 10^5. The bacterial genera recovered from these root canals were Streptococcus, Enterococcus, Gemella, Staphylococcus, Neisseria, Enterbacteria, Schwannia, Prevotella, Peptostreptococcus and Campylobacter. There was a predominance of facultative anaerobic Gram-positive cocci and Gram-negative rods. The most frequently isolated organisms were Streptococcus spp., coagula negative Staphylococcus spp. and Prevotella melaninogenica. Of these, the most prevalent organism, pure cultures of P. melaninogenica was found in 2 out of the 7 canals which demonstrated bacterial growth.

20 Dental Nurse’s Attitude and Knowledge on Immediate Management of Traumatized Teeth T. Loh*, S.Y. Lim and B.Y. Tan (Faculty of Dentistry, National University of Singapore and Ministry of Health, Singapore)

In Singapore, the school dental services involve 93% of the primary school children and 55% of secondary students. School dental nurses form the front-line providers of basic dental care including the immediate management of exo-oral trauma in schools. However beyond the scope of the school dental nurses are referred to dentists for subsequent management. The optimal immediate management of traumatized teeth is known to be important to long-term success. The purpose of this study is to assess the attitude and knowledge of the dental nurses on the immediate management of traumatized teeth by school dental nurses. A three-part questionnaire comprising questions on demographic data, attitude and knowledge was distributed to all school dental nurses. The questionnaire was distributed to 10 or more years of service experience. Knowledge on management of traumatized teeth was evaluated using dental denial education course (INEP). The knowledge was 46.5 ± 7.5% (p < 0.001). Only 38.5% felt comfortable about their current knowledge on the subject. A high proportion of the respondents (93.5%) indicated a need for more knowledge. About one fifth (13.5%) and two fifths (35.7%) of the respondents were interested in taking a course and a seminar respectively. About twenty-five percent would attempt to replant an avulsed tooth depending on the situation. All nurses concurred on the need to replace a permanent teeth (84.4%) agreed that this should be done within 20 minutes. More than half (58.3%) were not sure of the optimal storage medium for avulsed teeth. Their attitude towards replanting a tooth was good (93.5%) and 95.5% would take immediate action in writing appointments for traumatic cases. This study showed that dental nurses did not have sufficient knowledge to manage traumatized teeth however, their attitude towards replanting was good.

21 Translation and validation of the Chinese (HK) version of GOHAI M.C.M. Wong*, J.K.S. Liu, E.C.M. Lo (Faculty of Dentistry, The University of Hong Kong, Hong Kong)

Geriatric Oral Health Assessment Index (GOHAI) is originally developed by Atchinson and Dolan (1990) for assessing reported oral health problems of older adults. It is a 12-item instrument with a higher score indicating better reported oral health. In order to facilitate the translation of this 12-item scale into Chinese, the respondents were used to collect information on how elderly expressed their concerns about oral health issues. Then GOHAI was translated into Cantonese, Mandarin and English into Hong Kong Chinese. Then the translated Chinese version of GOHAI was pilot tested with elderly patients attending a dental hospital and residents in an elderly home. Problems with the translated version were noted and further adjustments for clarity was made. Two hundred aged 60 to 94 years were interviewed by a trained interviewer in elderly homes and social centers. The mean GOHAI scores of 68.8±7.2 for the Cantonese version and 68.8±7.3 for the Mandarin version were corrected by Cronbach’s alpha was 0.82. Corrected item-scale correlation coefficients ranged from 0.27 to 0.62. Significant association was found between the single item rated oral health measure and GOHAI score (r = 0.616, p<0.001). Elderly who perceived themselves as having dental treatment needs had lower mean GOHAI score than those who did not (p<0.001). Three factors emerged from principal component factor analysis considered with the three aspects included in GOHAI (physical functioning, psychosocial functioning, and pain and discomfort). This study showed that the reliability and validity of the translated GOHAI was satisfactory and could be used as a valuable instrument for measuring oral health related quality of life.

22 Development of an Oral Health Expectation Index for Elderly J.K.S. Liu*, M.C.M. Wong, E.C.M. Lo (Faculty of Dentistry, The University of Hong Kong)

Oral health expectation is thought to be an important factor in explaining various oral health behaviour. A psychometric measurement of oral health expectation for elderly was developed and tested by using the expectancy-value model in psychology. Nine oral health problems included in GOHAI (Atchinson and Dolan, 1990) were selected for the construction of the Oral Health Expectation Index (OHEI). The factors were identified by factor analysis to estimate the percentage of the elderly who know of free of these problems. The OHEI score was calculated by adding up the nine percentages. Hence the higher the OHEI score, the more the expectancies held by the elderly towards their own health. The OHEI index was measured by Cronbach’s alpha was 0.64. Owing to the poor inter-items and item-total scale correlations, four items were discarded. The goodness of fit index of the item-total scale index was 0.74. Corrected item-scale correlation coefficients ranged from 0.38 to 0.57. Cronbach’s alpha of OHEI index was 0.70. The hypothesis that the OHEI index is a syndrome for oral health expectations among elderly is not supported. The OHEI index of OHEI is satisfactory. OHEI can be used in further researches on dental health behaviour.