mean dental age and chronological age.

Results: For our study sample, the difference between chronological age and dental age assessed using the Demirjian's method for boys' ranges between -2.212 to 0.433 and for girls ranges between -1.730 to 1.583. Dental age was significantly over-predicted in age groups 11 to 15 in boys and 10 to 14 in girls while it was under-predicted in age groups 16 and 17 in girls. New graphs and tables for Pakistani males and females were formulated using linear regression with the equation Y = 100(1 + e^{-0.22+1X}) as a basis.

Conclusions: Statistically significant differences were found in the chronological age and dental age assessed by Demirjian's method for patients attending the Orthodontic clinic AKKH, thus a dental age assessment table for our Pakistani population to be created.

Poster 14:
EFFECTIVENESS OF DIAGNODENT COMPARED TO VISUAL INSPECTION AND RADIOGRAPHY FOR THE DETECTION OF SECONDARY CAVITIES: AN IN VITRO STUDY
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Objectives: The aim of the study was to investigate the effectiveness of DIAGNODent compared to visual and radiographic examination in detection of occlusal and approximal secondary caries in vitro.

Methods: The materials comprised of two study groups (Class I & Class II) with a total sample of 47 extracted premolar and molar permanent teeth restored with amalgam. The teeth were first tested with radiography and DIAGNODent and followed by visual inspection. They were then sectioned according to test site and analyzed using Image Analyzer (Leica Qwin System) for histological assessment as the gold standard. The data obtained from the study was analyzed using SPSS 12.01 for Windows system.

Results: Generally, the sensitivity of visual examination is higher compared to other methods in both Class I and Class II study groups with dishing score the highest in detecting early secondary caries. However, specificity of visual inspection is generally lower compared to DIAGNODent and radiograph. Both intra- and inter-examiners reproducibility revealed substantial agreement in Class I and moderate agreement in Class II lesions for DIAGNODent measurement.

Conclusions: DIAGNODent is less effective compared to visual examination in detecting early secondary caries. However, it has superior result to determine whether the tooth is caries free compared to visual inspection. Therefore, both could be used as adjunct to each other in the detection of early secondary caries. On the other hand, radiographic examination has very little value in detecting early secondary caries.

Keywords: DIAGNODent, secondary caries, visual inspection

Poster 15:
SYSTEMIC CONDITIONS IN PATIENTS WITH PERIODONTAL DISEASE
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Objectives: To determine the prevalence of systemic conditions in patients with periodontal disease and to assess the association between periodontal disease and systemic conditions.

Methods: Three hundred and seventy records of periodontal patients treated in Dental Clinic Hospital Universiti Sains Malaysia, Kelantan were randomly selected and reviewed after fulfilled the inclusion and exclusion criteria. Diagnosis of periodontal disease and the presence of systemic conditions were recorded. The periodontal disease was divided into gingivitis and chronic periodontitis and further classified into mild, moderate and severe according to probing pocket depth. Data obtained was analyzed using SPSS version 12.0. Chi-square test was used for analysis of association.

Results: The mean age of the subjects was 39.25 (SD=14.20) years old and majority were Malays. Systemic conditions were found in 30.5% of patients with periodontal disease. Out of this, 71% were found in patients diagnosed with chronic periodontitis (pocket depth more than 3mm). The most common condition was hypertension followed by diabetes mellitus.

Conclusions: There was significant association between systemic conditions and chronic periodontitis (p<0.001) although no difference in the severity of periodontitis. This may highlights the importance of the collaboration between medical and dental practitioners in management of such patients.

Keywords: systemic conditions, periodontal disease, chronic periodontitis

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