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<td>Congress: 12th International Congress of Iranian Academy of Restorative Dentistry 24-26 October 2012 Tabriz-Iran</td>
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<td>Title: Evaluation of agreement of visual observation, bitewing radiographies and DIAGNODENT system in the detection of proximal caries: An in vivo study</td>
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| Abstract: Background  
Due to the higher prevalence of dental caries, new laser-based device of DIAGNODENT has been used to detect these caries. Although, with some promising result in initial in vitro studies, further assessment of the laser devise in clinical applications and comparisons with the conventional methods are required.  
Objective  
The objective of this study was to assess the agreement between caries detection techniques of visual observation, bitewing radiographies and DIAGNODENT system in proximal caries diagnosis in clinical applications.  
Methods  
In this descriptive and analytical trial, 102 eligible teeth were selected from volunteer patients referred to Qazvin dental school, the presence of proximal caries was inspected on the selected teeth using three methods of visual observation, bitewing radiographies and DIAGNODENT by a calibrated observer. The agreement between different techniques was assessed by means of kappa statistics.  
Result  
The incidence of the proximal caries were 36 teeth surface (35.3%), 13 teeth surface (12.7%) and 24 teeth surface (23.5%) using DIAGNODENT system, visual observation and bitewing radiographies respectively. Kappa values was 0.222 (P<0.006) assessing the agreement between visual observation and DIAGNODENT system, 0.255 (P<0.006) between visual observation and bitewing radiographies and 0.303 (P<0.001) between bitewing radiographies and DIAGNODENT,  
Conclusion  
In total, poor agreement existed between the different methods of proximal caries detection including visual observation, bitewing radiographies and DIAGNODENT system; however, more studies are required with more specimens studies.  
Proximal caries, DIAGNODENT system, agreement, bitewing radiography, visual observation  
Presentation: Poster |