

# Optimum diagnostic tools for proximal caries detection in modern dentistry

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**Objectives:** (1) To determine the percentage agreement between clinical examination, bitewing and panoramic radiography for detection of proximal carious lesions, (2) To determine the diagnostic value between combination of clinical with bitewing and clinical with panoramic radiography for the detection of proximal carious lesions

**Methods:** The total number of used surfaces were 929. VTE, BW and OPG with improved interproximal mode were used to detection of proximal caries. Two examiners were standardized, use of ICDASII system and radiographic interpreting.

**Results:** 18 lesions were detected by VTE only, 131 by BW only and 113 by OPG only. There were 81 lesions detected by both BW and OPG, 14 lesions by both VTE and BW and 13 lesions by both VTE and OPG. In comparison between VTE combined with BW and VTE combined with OPG; 135 and 118 lesions were detected. The Kappa values summarised as followed; 0.159, 0.171, 0.613 and 0.630 respectively.

**Conclusions:** Improved interproximal mode of panoramic radiograph can provide basic information in patients which have good alignment of teeth. Therefore, in some cases, may need bitewing radiographs for further evaluation in detection of proximal caries.