

Abstract:**Introduction:**

In order to improve caries detection, use of invasive methods should be limited and acid red base caries detectors can be useful, because staining only infected dentin. The aim of the present study was to differentiate the SEEK and SNOOP caries detectors with different percentages of propylene glycol solvent in diagnosis of dental caries.

Materials and Methods:

In this experimental investigation, 150 human carious molar teeth were selected. Teeth were kept in normal saline solution in room temperature. Then sectioned in two same part through the center of the lesion and then caries removed. All teeth were randomly divided in two groups, A and B. Teeth in group A were stained by SEEK (acid red with 90% of Propylene glycol) and B by SNOOP (acid red with 47% of Propylene glycol) and the painted points were recorded. After excavation of the stained area, all samples of group A were painted by SNOOP, that named group C and all samples of group B were painted by SEEK, that named group D and painted points were recorded again. Data was analyzed by chi-square test.

Results:

Diagnostic accuracy of acid red with 90% Propylene glycol for detection of dental caries was more than acid red with 47% Propylene glycol and the difference was statistically significant ($P < 0.05$).

Conclusion:

It was concluded that the coloring power and accuracy of acid red with 90% Propylene glycol is more than acid red with 47% Propylene glycol.

Keywords:

Dental Caries, Acid Red, Caries Detector, Propylene Glycol.