

INTISARI

Radiograf merupakan alat diagnostik penting dalam kedokteran gigi. Interpretasi radiograf digital dapat dilakukan pada berbagai jenis perangkat. Penelitian ini bertujuan untuk membandingkan hasil penilaian kedalaman karies menggunakan *smartphone application (IDV - IMAIOS DICOM Viewer)* dan *dedicated periapical software (Sopro Imaging®)*.

Penelitian ini merupakan penelitian komparatif dengan rancangan penelitian *cross sectional*. Penelitian ini menggunakan 393 data sekunder radiograf intraoral periapikal yang memuat gambaran karies primer di RSGM Prof. Soedomo pada tahun 2022 – 2024. Sampel sejumlah 393 diamati sebanyak dua kali menggunakan *software* pada perangkat *smartphone* dan komputer. Dua *observer* mengevaluasi kedalaman karies pada sampel dan mengelompokkannya ke dalam lima kategori, yaitu RA2, RA3, RB4, RC5, dan RC6.

Data penelitian ini termasuk dalam variabel kategorik sehingga untuk menguji hipotesis dilakukan uji *Chi Square*. Tidak terdapat perbedaan signifikan ($p > 0,05$) antara penilaian kedalaman karies menggunakan *smartphone application (IDV)* dan *dedicated periapical software (Sopro Imaging®)*. Oleh karena itu, aplikasi *IDV* dapat direkomendasikan sebagai salah satu opsi pilihan untuk melakukan interpretasi gambar radiograf pada kasus karies.

Kata kunci: Karies, Radiograf, *Software*, *Smartphone*, Komputer.

ABSTRACT

Periapical radiographs are essential diagnostic tools in dentistry. Interpretation of digital radiographs can be performed on various types of devices. This study aimed to compare the accuracy of caries depth assessment using a smartphone application (IDV - IMAIOS DICOM Viewer) with dedicated periapical software (Sopro Imaging®) on periapical radiographs. A cross-sectional was performed in this study.

This study is a cross-sectional comparative study. A total of 393 secondary periapical intraoral radiographs depicting primary caries from Prof. Soedomo Dental Hospital between 2022 and 2024 were used. The sample of 393 radiographs was evaluated twice using software on both smartphones and computers. Two observers assessed the caries depth on the samples and categorized them into five categories, specifically RA2, RA3, RB4, RC5, and RC6.

The data in this study were categorical, thus a Chi-Square test was employed to test the hypothesis. The results demonstrated no significant difference ($p > 0.05$) between caries depth assessments using the smartphone application (IDV) and the dedicated periapical software (Sopro Imaging®). Based on these findings, the smartphone application can be recommended as a viable option for interpreting radiographic images in caries cases.

Keyword : Caries, Radiograph, Software, Smartphone, Computer.