

# PERBEDAAN WAKTU PERENDAMAN RESIN KOMPOSIT HIBRID DALAM MINUMAN BERSODA TERHADAP KEBOCORAN TEPI TUMPATAN

(DIFFERENCE TIME IMMERSION OF COMPOSITE HYBRID RESIN IN  
SOFT DRINKS TO MICROLEAKAGE)

## ABSTRACT

**Background.** The number of exposures that occur in the oral cavity as a result of the low pH acidic foods or beverages consumed, will affect the stability of the pH in the oral cavity. Composite is still a restorative material that is widely used by clinicians. Dentistry material will react and adapt if it is on the condition that the acid environment of the oral cavity in a certain time. Failure adaptation may result in microleakage on the restoration. **Purpose.** The aim of this study was to analyze the increase in the microleakage hybrid composite resin on increasing immersion time in soft drinks. **Method.** This study used a sample of 24 teeth insisive cows. The samples were divided into 4 groups by simple random sampling, and conducted restoration with hybrid composite resin and observed for 8 days. In the first group, only distilled water soaked samples. In group 2, the sample immersed soft drinks one time each day. In the third group, the sample immersed soft drinks three times each day. In the fourth group, the sample immersed soft drinks five times each day. Microleakage was observed by looking at the depth of penetration of methylene blue 0.5% in the cavity using a digital microscope, then carried the scoring. **Results.** There are significant differences in the microleakage ( $p < 0.05$ ) between the control group and the treatment group (group 2,3, and 4). Judging from the middle value (median), looked depth microleakage increases in the following order, group 1, group 2, group 3, and the last group 4. **Conclusion.** There is a significant difference in the microleakage hybrid composite resin restorations among groups. Microleakage increases with long immersion in soft drinks.

**Key words:** soft drinks, composite hybrid, microleakage.