

**PERBEDAAN KEKASARAN PERMUKAAN RESIN KOMPOSIT  
MICROHYBRID SETELAH PROSEDUR *POLISHING* MENGGUNAKAN  
PASTA INTAN DAN PASTA ALUMINIUM OKSIDA**

**(DIFFERENCES IN THE SURFACE ROUGHNESS OF MICROHYBRID  
COMPOSITE RESINS AFTER POLISHING PROCEDURE USING  
DIAMOND PASTE AND ALUMINUM OXIDE PASTE)**

**ABSTRACT**

**Background.** The use of composite resins in dentistry is well accepted for restoring anterior and posterior teeth, especially microhybrid composite resins. Proper finishing and polishing are important steps in clinical restorative dentistry that enhance both esthetics and longevity of restorations. Many polishing procedures have been evaluated for their effect on the surface roughness of restorative materials. The two kinds of polishing paste materials may have some different effects based on their own characteristics. **Objective.** To determine the differences in the surface roughness of microhybrid composite resins after polishing procedure using two different materials, specifically diamond paste and aluminum oxide paste. **Method.** This research was an experimental study. The samples of this research were 28 microhybrid composite resin blocks that have been fitted with the criteria of sample. Samples were divided into 4 groups. Each group was treated with different procedures, i.e. (1) without finishing and polishing, (2) finishing using diamond bur, (3) finishing then polishing using diamond paste, and (4) finishing then polishing using aluminum oxide paste. Average surface roughness (Ra) was measured with a surface roughness tester. **Result.** Significant differences in the surface roughness of composite resins were found between groups. **Conclusion.** There are differences in the surface roughness of microhybrid composite resins after polishing procedure using diamond paste and aluminum oxide paste. Polishing procedure using aluminum oxide pastes produced smoother surface than using a diamond paste.

*Keywords: surface roughness, composite resin, polishing paste*