

## Pengaruh perendaman larutan nanas terhadap kekerasan permukaan resin komposit bulk-fill = Effect of pineapple solution immersion on surface hardness of bulk-fill composite resin

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### Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh perendaman larutan nanas terhadap kekerasan permukaan resin komposit bulk-fill. Enam puluh spesimen resin komposit Tetric®N-Ceram Bulk-Fill shade IVB berdiameter 6 mm dan tebal 3 mm dibagi menjadi dua kelompok perlakuan, yaitu perendaman dengan aquades sebagai kontrol dan larutan nanas pH:  $3,8 \pm 0,1$  ( $n= 30$ ). Sebelumnya seluruh kelompok direndam terlebih dahulu dalam aquades selama 24 jam dalam inkubator bersuhu 37°C sebagai baseline. Kemudian masing-masing kelompok tadi akan direndam kembali dalam larutan selama 1 hari, 3 hari dan 7 hari ( $n= 10$ ). Kekerasan permukaan diukur menggunakan HMV-G Series Vickers Micro Hardness Tester Shimadzu® dengan indenter Knoop. Setiap spesimen akan diindentasi dengan beban sebesar 50 gf, sebanyak 5 kali indentasi. Hasil penelitian menunjukkan bahwa terdapat perbedaan bermakna ( $p < 0,05$ ) antara perendaman 1 hari, 3 hari dan 7 hari pada kelompok perendaman larutan nanas dengan uji One-way ANOVA. Disimpulkan bahwa larutan nanas dapat menurunkan kekerasan permukaan resin komposit bulk-fill.

*This study aims to determine effect of pineapple solution immersion on surface hardness of bulk-fill composite resin. Sixty specimens of Tetric®N-Ceram Bulk-Fill composite resin shade IVB, 6 mm in diameter and 3 mm thick were divided into two groups, with immersion in aquades as a control and pineapple solution pH:  $3,8 \pm 0,1$  ( $n= 30$ ). Before immersion, all specimens were immersed in aquades for 24 hours and were saved in incubator at 37°C as a baseline. Each group of immersions would be divided into three groups, with immersion for 1 day, 3 days and 7 days ( $n= 10$ ). The surface hardness was measured using HMV-G Series Vickers Micro Hardness Tester Shimadzu® with Knoop Indenter. Each specimen was indented with load of 50 gf for 5 times. The results showed that there were statistically significant differences ( $p < 0.05$ ) between pineapple solution immersion for 1 day, 3 days and 7 days with One-way ANOVA test. It can be concluded that pineapple solution can reduce surface hardness of bulk-fill composite resin.*