Pengaruh perendaman larutan stroberi terhadap kekerasan permukaan resin komposit bulk-fill = The effect of immersion in strawberry solution on surface Hardness of bulk-fill composite resin

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Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh perendaman larutan stroberi terhadap perubahan kekerasan permukaan resin komposit bulk-fill. Total sampel terdiri dari enam puluh spesimen resin komposit Tetric N-Ceram bulk-fill (ketebalan 3 mm dan diameter 6 mm; warna IVB). Spesimen dikelompokan menjadi dua, yaitu kelompok perendaman dalam akuades (kontrol) dan larutan stroberi. Spesimen direndam dalam akuades dan disimpan dalam inkubator bersuhu 37°C selama 24 jam sebagai baseline. Selanjutnya masing-masing kelompok direndam selama 1 hari, 3 hari dan 7 hari (n=10). Setelah perendaman, dilakukan pengukuran nilai kekerasan permukaan menggunakan Micro Vickers Hardness Tester dengan indenter Knoop. Data yang diperoleh dianalisis menggunakan uji One-Way ANOVA. Hasil menunjukan bahwa perendaman dalam akuades dan larutan stroberi selama 1 hari, 3 hari dan 7 hari dapat menurunkan kekerasan permukaan resin komposit bulk-fill secara signifikan (p<0,05). Dapat disimpulkan bahwa derajat keasaman dan durasi perendaman menurunkan kekerasan permukaan resin komposit bulk-fill. <hr>This study aimed to analize the effect of immersion in strawberry solution on surface hardness of bulk-fill composite resin. The total sample consist of sixty Tetric N-Ceram bulk-fill composite resin specimens (thickness 3 mm and diameter 6 mm; shade IVB). Samples were devided into two groups; distilled water as the control group and strawberry solution. Samples were immersed in distilled water and saved in an incubator at 37°C for 24 hours as a baseline. Then samples were alternately immersed for 1 day, 3 days and 7 days (n=10). After immersion, the changes in surface hardness of bulk-fill composite resin were measured using Micro Vickers Hardness Tester with Knoop Indentor. The data obtained were analyzed using One-Way ANOVA. The result showed that immersion in distilled water and strawberry solution for 1 day, 3 days and 7 days can significantly reduced the surface hardness of bulk-fill composit resin. It can be concluded that the acidity degree and immersion duration decrease the surface hardness of bulkfill composire resin.