

## INTISARI

Resin akrilik polimerisasi panas merupakan bahan yang terdiri atas polimer dan monomer yang dalam proses polimerisasinya membutuhkan energi panas. Salah satu fungsi bahan ini adalah sebagai basis gigi tiruan. Penggunaan basis gigi tiruan resin akrilik polimerisasi panas di dalam mulut akan berkontak dengan minuman vitamin C 1000 mg yang berwarna. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh minuman vitamin C 1000 mg terhadap perubahan warna basis gigi tiruan resin akrilik polimerisasi panas.

Bahan penelitian ini adalah resin akrilik polimerisasi panas dan minuman vitamin C 1000 mg. Alat penelitian berupa cetakan *metal split mould* (diameter 20 mm dan tebal 2 mm) dan *chromameter*. Dua puluh empat sampel resin akrilik polimerisasi panas berbentuk silinder (20 mm x 2 mm) dibagi menjadi empat kelompok (n= 6) perendaman. Kelompok 1 direndam dalam akuades selama 1 hari, kelompok 2, 3 dan 4 masing-masing direndam dalam minuman vitamin C 1000 mg selama 1 hari, 1 minggu dan 2 minggu. Warna sampel diukur sebelum dan setelah perendaman dengan *chromameter*. Data  $\Delta E$  diuji dengan ANAVA satu jalur dan  $LSD_{0,05}$ .

Hasil penelitian menunjukkan rerata  $\Delta E$  pada seluruh kelompok perendaman mengalami kenaikan. Perendaman basis gigi tiruan resin akrilik polimerisasi panas dalam minuman vitamin C 1000 mg berpengaruh secara signifikan ( $p < 0,05$ ) terhadap perubahan warna. Kesimpulan penelitian ini adalah terdapat pengaruh minuman vitamin C 1000 mg terhadap perubahan warna basis gigi tiruan resin akrilik polimerisasi panas.

Kata Kunci : Resin Akrilik, minuman vitamin C 1000 mg, perubahan warna.

## ABSTRACT

Heat cured acrylic resin is a material consisting of polymers and monomers in which polymerization process requires heat energy. One of the function of this material is using for denture base. The application of heat cured acrylic resin in the mouth as a denture base caused material could contact with the vitamin C 1000 mg colored beverage. This research was aimed to know the influence of heat cured acrylic resin immersion in vitamin C 1000 mg beverage towards discoloration.

This research material were heat cured acrylic resin, and 1000 mg of vitamin C beverage. This research instruments were metal split mould (20 mm in diameter and 2 mm in thickness) and a chromamater. Twenty-four samples of cylindrical heat cured acrylic resin (20 mm x 2 mm) are divided into four groups (n= 6). Group 1 was soaked in distilled water for a day, group 2, 3 and 4 were respectively soaked in vitamin C 1000 mg beverage for a day, a week and 2 weeks. The color of the samples were measured before and after soaking with chromameter. The data of  $\Delta E_{L^*a^*b^*}$  were analyzed by a one way ANAVA and  $LSD_{0.05}$  test.

The result of this study showed the mean of  $\Delta E$  for all immersion groups were increase. The immersion in 1000 mg vitamin C beverage has significant effect ( $p < 0.05$ ) on discoloration of heat cured acrylic resin denture base. The conclusion of this study show there is an influence of 1000 mg vitamin C beverage on discoloration of heat cured acrylic resin denture base.

Keywords : Acrylic resin, vitamin C 1000 mg beverage, discoloration