

ABSTRAK

Pamungkas, Novi K.P. 2015. **Pengaruh Lama Perendaman Hasil Cetakan Alginat dalam Infusa Daun Jambu Biji (*Psidium guajava* Linn) 5% Terhadap Stabilitas Dimensi**. Tugas Akhir, Fakultas Kedokteran Universitas Brawijaya. Pembimbing: (1) Kartika Andari Wulan, drg., Sp.Pro (2) Delvi Fitriani, drg., M. Kes

Alginat merupakan salah satu bahan cetak kedokteran gigi yang paling sering digunakan. Dalam upaya melakukan kontrol infeksi, hasil cetakan alginat dilakukan desinfeksi sebelum dikirim ke laboratorium. Infusa daun jambu biji (*Psidium guajava* Linn) 5% dapat dijadikan bahan alternatif untuk desinfektan karena mampu menurunkan jumlah mikroorganisme pada hasil cetakan alginat dengan cara perendaman. Teknik merendam diketahui lebih efektif karena dapat menjangkau seluruh cetakan tetapi teknik ini menyebabkan cetakan berkontak lebih banyak dengan larutan desinfektan sehingga beresiko mempengaruhi stabilitas dimensi. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh lama perendaman hasil cetakan alginat dalam infusa daun jambu biji (*Psidium guajava* Linn) 5% terhadap stabilitas dimensi. Penelitian dilakukan dengan menggunakan 28 sampel yang terbagi dalam 4 kelompok. Sampel merupakan hasil cetakan alginat yang direndam dalam akuades steril selama 5 menit kemudian diisi dental gypsum tipe III sebagai kelompok kontrol dan hasil cetakan alginat yang direndam dalam infusa daun jambu biji (*Psidium guajava* Linn) 5% selama 5, 10, dan 15 menit, lalu diisi dengan dental gypsum tipe III sebagai kelompok perlakuan. Data dianalisa menggunakan Uji *One-Way ANOVA* dan *Post Hoc Least Significant Difference-test (LSD)*. Hasil menunjukkan terdapat perbedaan yang signifikan saat hasil cetakan alginat direndam dalam infusa daun jambu biji selama 15 menit ($p < 0.05$). Kesimpulan pada penelitian ini adalah terdapat pengaruh lama perendaman hasil cetakan alginat dalam infusa daun jambu biji (*Psidium guajava* Linn) 5% terhadap stabilitas dimensi, terutama yang direndam selama 15 menit.

Kata kunci: Hasil cetakan alginat, infusa daun jambu biji (*Psidium guajava* Linn) 5%, stabilitas dimensi

ABSTRACT

Pamungkas, Novi K.P. 2015. **The Effect of Alginate Immersion Time in Infusion of Guajava Leaves (*Psidium guajava* Linn) 5% toward The Dimensional Stability.** Final Assignment, Faculty of Medicine, Brawijaya University. Supervisors: (1) Kartika Andari Wulan, drg., Sp.Pro (2) Delvi Fitriani, drg., M. Kes

Alginate is a dental impression material which most commonly used. In an order to control the infection, the alginate impressions should be disinfected before being handled in laboratory. Infusion of guajava leaves (*Psidium guajava* Linn) 5% can be used as an alternative disinfectant that can reduce the number of microorganisms on the results of alginate impressions by immersion method. Immersion method known to be more effective because it could reach the entire impression but this method causes impression contact with the disinfectant solution in great number, so it has risk to affect the dimensional stability. The aim of this research was to know the effect of alginate immersion time in infusion of guajava leaves (*Psidium guajava* Linn) 5% toward the dimensional stability. The research was done by using 28 samples that divided into four groups. The samples were alginate impressions that immersed in sterile distilled water for 5 minutes then poured with dental gypsum type III as a control group and impressions that immersed in infusion of guajava leaves (*Psidium guajava* Linn) 5% for 5, 10, and 15 minutes, and then poured with dental gypsum type III as treatment groups. The data were analyzed by the *One-Way ANOVA* analysis and *Post Hoc Least Significant Difference-test (LSD)*. The result showed there were significant differences when the alginate impressions were disinfected by infusion of guajava leaves (*Psidium guajava* Linn) 5% for 15 minutes ($p < 0.05$). The conclusion of this research is alginate immersion time in infusion of guajava leaves (*Psidium guajava* Linn) 5% has an effect toward the dimensional stability, particularly when immersion time was 15 minutes.

Keywords: Alginate impressions, infusion of guajava leaves (*Psidium guajava* Linn) 5%, dimensional stability