

**PENGARUH EKSTRAK KULIT PISANG KEPOK
(*Musa paradisiaca L.*) SEBAGAI *DENTURE CLEANSER*
TERHADAP KEKUATAN TEKAN LEMPENG AKRILIK
GIGI TIRUAN**



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Pengaruh Ekstrak Kulit Pisang Kepok (*Musa paradisiaca L.*) Sebagai *Denture Cleanser* Terhadap Kekuatan Tekan Lempeng Akrilik Gigi Tiruan

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ABSTRAK

Latar Belakang: Penggunaan gigi tiruan lepasan akrilik merupakan salah satu solusi dari masalah kehilangan gigi. Kekuatan tekan penting bagi gigi tiruan karena sebagian besar gaya mastikasi berupa tekanan. Pembersih gigi tiruan berbahan kimia, salah satunya ekstrak kulit pisang kepok. **Tujuan penelitian:** Mengetahui pengaruh ekstrak kulit pisang kepok (*Musa paradisiaca L.*) sebagai *denture cleanser* terhadap kekuatan tekan lempeng akrilik gigi tiruan. **Metode penelitian:** Penelitian ini menggunakan metode penelitian eksperimental laboratoris dengan pendekatan *post-test only control group design*. Sampel dipilih secara *purposive sampling* sebanyak 28 sampel untuk 4 kelompok perlakuan. Sampel akrilik masing-masing direndam dalam 50 ml *aquadest* sebagai kelompok kontrol dan 50 ml ekstrak kulit pisang kepok konsentrasi 25%, 50%, dan 75% sebagai kelompok perlakuan. **Hasil:** Rata-rata nilai kekuatan tekan tertinggi terdapat pada perendaman dengan *aquadest* sedangkan rata-rata nilai kekuatan tekan terendah pada perendaman dengan ekstrak kulit pisang kepok konsentrasi 75%. Hasil uji statistik *One Way Anova* menunjukkan perbedaan bermakna ($p < 0,05$) kekuatan tekan antara perendaman dalam *aquadest* dengan ekstrak kulit pisang kepok konsentrasi 25%, 50%, dan 75%. **Kesimpulan:** Terdapat pengaruh berupa penurunan kekuatan tekan lempeng akrilik setelah dilakukan perendaman dalam ekstrak kulit pisang kepok konsentrasi 25%, 50%, dan 75%.

Kata-kata kunci: ekstrak kulit pisang kepok, GTL akrilik, kekuatan tekan, *Musa paradisiaca L.*



Effect of Kepok Banana Peel Extract (Musa paradisiaca L.) As Denture Cleanser on The Compressive Strength of Denture Acrylic Plate

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ABSTRACT

Background: The use of acrylic removable dentures is one of the solutions to the problem of tooth loss. Compressive strength is important for dentures because most of the masticatory force is in the form of pressure. Denture cleanser made from natural ingredients was developed to minimize the effects of denture cleansers made from chemicals, one of them is kepok banana peel extract. **Objective:** To determine the effect of kepok banana peel extract (*Musa paradisiaca L.*) as a denture cleanser on the compressive strength of denture acrylic plates. **Method:** This study used a laboratory experimental research method with a post-test only control group design approach. Samples were selected by purposive sampling of 28 samples for 4 treatment groups. Each acrylic sample was soaked in 50 ml of aquadest as the control group and 50 ml of kepok banana peel extract at concentrations of 25%, 50%, and 75% as the treatment group. **Results:** The average value of the highest compressive strength was found in immersion with aquadest while the lowest average value of compressive strength was in immersion with kepok banana peel extract with a concentration of 75%. The results of the One Way Anova statistical test showed a significant difference ($p < 0.05$) in compressive strength between immersion in aquadest and kepok banana peel extract concentrations of 25%, 50% and 75%. **Conclusion:** There is an effect in the form of a decrease in the compressive strength of the acrylic plate after immersion in kepok banana peel extract concentrations of 25%, 50% and 75%.

Keywords: acrylic removable denture, compressive strength, kepok banana peel extract, *Musa paradisiaca L.*

