

ABSTRAK

PENGARUH PERENDAMAN *EFFERVESCENT* EKSTRAK ETANOL BAWANG PUTIH (*Allium sativum* L.) TERHADAP PENGHAMBATAN PERTUMBUHAN *Staphylococcus aureus* PADA PLAT GIGI TIRUAN RESIN AKRILIK POLIMERISASI PANAS

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Denture stomatitis merupakan peradangan pada mukosa yang berkontak dengan gigi tiruan yang disebabkan akumulasi bakteri seperti *Staphylococcus aureus*. Bawang putih (*Allium sativum*) memiliki kandungan senyawa antibakteri yang dapat dijadikan alternatif pembersih gigi tiruan. Tujuan penelitian ini untuk mengetahui pengaruh perendaman *effervescent* ekstrak etanol bawang putih terhadap penghambatan pertumbuhan *Staphylococcus aureus* pada plat gigi tiruan resin akrilik polimerisasi panas. Jenis penelitian ini eksperimental laboratoris *in vitro* dengan *effervescent* ekstrak etanol bawang putih 40%, 50%, dan 60%. Plat resin akrilik polimerisasi panas sebanyak 12 buah dibagi menjadi 3 kelompok perlakuan dan diinkubasi pada suspensi *S. aureus* selama 24 jam kemudian direndam dalam *effervescent* ekstrak etanol bawang putih selama 6 jam. Perhitungan koloni bakteri dilakukan menggunakan *colony counter* dan data dianalisis dengan *One-way ANOVA* serta *Post hoc LSD*. Hasil penelitian menunjukkan penurunan jumlah koloni *S. aureus* seiring dengan meningkatnya konsentrasi ekstrak etanol bawang putih. Hasil analisis menunjukkan *effervescent* ekstrak etanol bawang putih 60% memiliki rerata jumlah koloni yang lebih sedikit secara bermakna dengan *effervescent* ekstrak etanol bawang putih 40% dan 50%. Simpulan penelitian ini adalah *effervescent* ekstrak etanol bawang putih (*Allium sativum*) mampu menghambat pertumbuhan *Staphylococcus aureus* pada plat gigi tiruan resin akrilik polimerisasi panas.

Kata kunci: Antibakteri, *Denture stomatitis*, *Effervescent*, *Effervescent* ekstrak etanol bawang putih, *Staphylococcus aureus*

ABSTRACT

THE EFFECT OF IMMERSION EFFERVESCENT GARLIC ETHANOL EXTRACT (*Allium sativum* L.) AGAINST GROWTH INHIBITION OF *Staphylococcus aureus* ON THE DENTAL PLATE HEAT CURED ACRYLIC

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Denture stomatitis is an inflammation of the mucosa contact with denture caused by the accumulation of bacteria such as Staphylococcus aureus. Garlic (Allium sativum) contains antibacterial compounds that can be used as an alternative denture cleanser. The purpose of this study was to determine the effected of immersion effervescent garlic ethanol extract (Allium sativum) against growth inhibition of Staphylococcus aureus on the dental plate heat cured acrylic. This research was experimental laboratory in vitro using 40%, 50%, and 60% effervescent garlic ethanol extract. The sample were 12 pieces of heat cured acrylic plates were divided into 3 treatment groups then incubated in S. aureus suspension for 24 hours and then immersed in effervescent garlic ethanol extract 6 hours. Bacterial colonies were counted using colony counter and data were analyzed using One-way ANOVA and Post hoc LSD. Statistic analysis showed that the number of S. aureus colonies decreased along with the increasing concentration of garlic ethanol extract. The results of analysis showed that the effervescent garlic ethanol extract 60% had a significantly lower mean number of colonies with the effervescent garlic ethanol extract 40% and 50%. The conclusion of this study was effervescent garlic ethanol extract (Allium sativum) could inhibited the growth of Staphylococcus aureus on the dental plate heat cured acrylic.

Keywords: *Antibacterial, Denture stomatitis, Effervescent, Effervescent garlic ethanol extract, Staphylococcus aureus*