

**PERBEDAAN DAYA ANTIBAKTERI ANTARA KLOORHEKSIDIN
DIGLUKONAT 2% DAN EKSTRAK ETANOL DAUN JAMBU BIJI
(*Psidium guajava* Linn) BERBAGAI KONSENTRASI
(tinjauan terhadap *Enterococcus faecalis*)**

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INTISARI

Latar belakang : *Enterococcus faecalis* merupakan bakteri patogen penyebab kegagalan paska perawatan saluran akar karena memiliki kemampuan untuk beradaptasi dan mentoleransi secara ekologis pada kondisi perawatan saluran akar yang gagal. Pemberantasan *Enterococcus faecalis* dari saluran akar dapat dilakukan salah satunya dengan penggunaan bahan irigasi. Salah satu bahan irigasi yaitu klorheksidin diglukonat 2% yang efektif melawan *Enterococci* dan jamur, namun tidak dapat melarutkan jaringan. Klorheksidin diglukonat 2% dapat menimbulkan reaksi alergi apabila digunakan secara berulang dalam jangka waktu yang lama. Bahan alternatif irigasi lain untuk menghindari reaksi alergi tersebut yaitu ekstrak daun jambu biji (*Psidium guajava* Linn) yang dapat berfungsi sebagai antibakteri. Adanya kandungan tanin di dalam daun jambu biji (*Psidium guajava* Linn) dapat menghambat pertumbuhan bakteri *Enterococcus faecalis*.

Tujuan penelitian : untuk mengetahui perbedaan keefektivitasan daya antibakteri antara klorheksidin diglukonat 2% dengan berbagai konsentrasi ekstrak daun jambu biji (*Psidium guajava* Linn).

Desain penelitian : eksperimental laboratories *in vitro* dengan metode difusi sumuran agar pada media TSA. Media TSA di olesi *Enterococcus faecalis* kemudian ditetesi larutan uji klorheksidin diglukonat 2%, aquabides steril dan ekstrak daun jambu biji dengan konsentrasi 20%, 40%, 60% dan 80%. Perhitungan daya antibakteri dengan mengukur zona radikal menggunakan *slidding caliper*. Data dianalisis menggunakan uji *One Way Anova* dilanjutkan dengan uji LSD.

Hasil penelitian : klorheksidin diglukonat 2% memiliki daya antibakteri yang lebih tinggi terhadap *Enterococcus faecalis* dibandingkan dengan ekstrak daun jambu biji dengan konsentrasi 20%, 40%, 60% dan 80%. Konsentrasi ekstrak daun jambu biji (*Psidium guajava* Linn) sebesar 60% memiliki daya antibakteri paling tinggi dibandingkan konsentrasi lain sehingga dapat digunakan sebagai bahan alternatif irigasi saluran akar.

Kata kunci : *Enterococcus faecalis*, Klorheksidin diglukonat 2%, Ekstrak daun jambu biji (*Psidium guajava* Linn).

**DIFFERENCES OF ANTIBACTERIAL POWER BETWEEN
CHLORHEXIDINE DIGLUCONATE 2% AND VARIOUS
CONCENTRATIONS OF GUAVA LEAVES ETHANOL
EXTRACT (*Psidium guajava* Linn)
(Observation to *Enterococcus faecalis*)**

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ABSTRACT

Introduction : *Enterococcus faecalis* is a bacterial pathogen that caused failure in post of root canal treatment, because has an ability to adapt and tolerate ecologically due to condition of failure root canal treatment. One eradication of *Enterococcus faecalis* from root canal can be done by the use of irrigation solution. One of irrigation solution is *Chlorhexidine digluconat* 2% which effective against *Enterococci* and fungi, but cannot dissolving a tissue. Chlorhexidine digluconate 2% can cause allergic reaction if use repeatedly in the long term. Another alternative of irrigation solution to avoid the allergic reaction is guava leaves extract that can function as an antibacterial. One of the content in the leaves of guava is tanin that can be use to inhibit the growth of *Enterococcus faecalis* bacteria.

The Research Objective: To know the difference of the effectiveness of antibacterial power between Chlorhexidine digluconate 2% with the various extract of guava leaves (*Psidium guajava* Linn).

Methods: Experimental laboratories design by in vitro using broth dilution method with agar dilution in TSA media. TSA media oiled *Enterococcus faecalis* then spilled with Chlorhexidine digluconate 2% test solution , sterile aquabides and guava leaves extract with concentration 20%, 40%, 60% and 80%. Antibacterial strength count by measuring radical zone using *slidding caliper*. Data were analized using One Way Anova and then using LSD test.

Result: Chlorhexidine digluconate 2% has higher antibacterial power against *Enterococcus faecalis* than extract of guava leaves with concentration 20%, 40%, 60% and 80%. The concentration of extract of guava leaves (*Psidium guajava* Linn) is 60% which has the highest power of antibacterial than another concentration, so that can be used as an alternative irrigation solution in root canal.

Key words : *Enterococcus faecalis*, Chlorhexidine digluconat 2%, Guava leaves extract (*Psidium guajava* Linn).