

Fakultas Kedokteran Gigi
Universitas Andalas Padang
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PUTRI OVIEZA MAIZAR, 1210343002

**Pengaruh Minyak Atsiri Kulit Jeruk Siam Gunung Omeh (*Citrus nobilis*
LOUR var *microcarpa* Hassk) pada Berbagai Konsentrasi Terhadap
Pertumbuhan Bakteri *Staphylococcus aureus***

ix + 51 Halaman + 5 Gambar + 3 Grafik + 4 Tabel + 4 Lampiran

ABSTRAK

Latar Belakang: *Staphylococcus aureus* merupakan salah satu flora normal di rongga mulut. Namun apabila dipengaruhi oleh faktor predisposisi seperti perubahan kuantitas bakteri dan penurunan daya tahan tubuh *host*, bakteri ini dapat menimbulkan infeksi baik yang bersifat lokal maupun sistemik. Penggunaan obat dari bahan alam kini menjadi pilihan karena dinilai lebih aman dan memiliki efek samping yang relatif lebih kecil. Kulit jeruk Siam Gunung Omeh merupakan salah satu bahan alam penghasil minyak atsiri yang memiliki daya antibakteri terhadap berbagai bakteri gram positif maupun gram negatif.

Tujuan: Tujuan dari penelitian ini adalah untuk mengetahui pengaruh minyak atsiri kulit jeruk Siam Gunung Omeh pada berbagai konsentrasi terhadap pertumbuhan bakteri *Staphylococcus aureus*.

Metode: Penelitian ini merupakan eksperimental laboratorium. Sampel minyak atsiri kulit jeruk Siam Gunung Omeh disuling dengan cara distilasi kemudian dibuat menjadi 3 kelompok perlakuan yakni konsentrasi 100%, 90%, dan 80% dengan jumlah 11 sampel untuk tiap perlakuan. Daya antibakteri diujikan dengan metode dilusi cair sehingga didapatkan KHM (Kadar Hambat Minimal) yang ditandai dengan kejernihan tabung secara visual. Data yang didapatkan kemudian diuji secara statistik menggunakan uji *Chi-square*.

Hasil: Hasil penelitian menunjukkan bahwa pada konsentrasi 100% terdapat 9 tabung jernih dan 2 tabung lainnya keruh. Pada konsentrasi 90% didapatkan 8 tabung jernih dan 3 tabung lainnya keruh. Sedangkan pada konsentrasi 80% didapatkan 1 tabung yang jernih dan 10 tabung lainnya keruh. Setelah dilakukan uji statistik dengan uji *Chi-square* didapatkan nilai $p = 0,001$ ($p < 0,05$).

Kesimpulan: Minyak atsiri kulit jeruk Siam Gunung Omeh konsentrasi 100%, 90%, dan 80% berpengaruh terhadap pertumbuhan bakteri *Staphylococcus aureus* dengan KHM berkisar antara konsentrasi 90% dan 80%.

Kata kunci: minyak atsiri kulit jeruk Siam Gunung Omeh, antibakteri, *Staphylococcus aureus*

Faculty of Dentistry
Andalas University Padang
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PUTRI OVIEZA MAIZAR, 1210343002

**The Influence of Essential Oil of Gunung Omeh Orange Peels (*Citrus nobilis*
LOUR var *microcarpa* Hassk) in Various Concentrations Against The
Growth of *Staphylococcus aureus***

ix + 51 Pages + 5 Images + 3 Charts + 4 Tables + 4 Attachments

ABSTRACT

Background: *Staphylococcus aureus* is one of the normal flora in the oral cavity. But if it is influenced by predisposing factors such as bacterial quantity alteration and host immunity reduction, this bacteria will induce infection in both locally or systemically. Medicinal use of natural-based ingredients is now considered as an option since it is safer and the side-effect is relatively small. Gunung Omeh orange peel is one of the natural ingredients containing essential oil that has antibacterial activity against various gram-positive and gram-negative bacteria.

Aim: The aim of this study is to find out the influence of Gunung Omeh orange peels essential oil in various concentrations against *Staphylococcus aureus*.

Method: This is a laboratory experimental type research. Essential oil of Gunung Omeh orange peels were distilled and used as sample which then made into 3 groups consisting 100%, 90%, and 80% of concentrations with 11 samples for each group. The antibacterial activity was evaluated by using broth dilution method and the MIC (Minimum Inhibitory Concentration) was determined visually by the clarity of the test tube. The data obtained were analyzed by using *Chi-square* test.

Results: The result showed that there were 9 test tubes represent clarity while 2 other tubes showing turbidity in 100% of concentration. As well as those in 90% of concentration, there were 8 clarity tubes and 3 other tubes showed turbidity. While in 80% of concentration found only 1 tube that represents clarity and 10 other tubes showed turbidity. After these data were analyzed by using *Chi-square* test, the result showed that $p = 0,001$ ($p < 0.05$).

Conclusion: The essential oil of Gunung Omeh orange peels in 100%, 90%, and 80% of concentration have influenced the growth of *Staphylococcus aureus* with MIC ranging from 90% of concentration to 80% of concentration.

Keywords: essential oil of Gunung Omeh orange peels, antibacterial, *Staphylococcus aureus*