PERBANDINGAN POTENSI KADAR HAMBAT MINIMAL BAKTERI *CUTIBACTERIUM ACNES* DARI MINYAK ATSIRI JERUK *(CITRUS AURANTIFOLIA, CITRUS MICROCARPA, CITRUS HYSTRIX)*

TESIS

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Abstrak

Latar belakang

Akne vulgaris (AV) merupakan kelainan kulit kronik pada folikel pilosebasea. Resistensi antibiotik pada pengobatan AV menjadi suatu permasalahan, oleh sebab itu dicari alternatif pilihan terapi lain terutama dari bahan alam diantaranya minyak atsiri jeruk (*C. aurantifolia, C. hystrix, C. microcarpa*).

Tujuan

Untuk mengetahui perbandingan KHM *C. acnes* dari minyak atsiri (*Citrus aurantifoli, C. microcarpa, C. hystrix,)* dan dibandingkan dengan eritromisin (kontrol positif), DMSO (kontrol negatif).

Subjek dan Metode

Penelitian ini merupakan *true eksperimental research method*. Sampel berupa minyak atsiri jeruk (*C. aurantifolia, C. microcarpa, C. hystrix)* diperoleh dari kulit jeruk yang didestilasi uap setelah itu dilakukan pengenceran bertingkat secara dilusi dengan konsentrasi (4%, 3,75%, 3,5%, 3,25%, 2,75%, 2,5%, 2,25%, 2%, 1,75%,1,5%, 1,25%, 1%) selanjutnya dicapurkan 50 mikro bakteri, 50 mikro sampel minyak atsiri dan 100 mikro media lalu diinkubasi selama 24 jam. Setelah itu diteteskan pewarna INT *(Iodonitrotetrazolium chloride)*.

Hasil

Kadar Hambat Minimum pada masing-masing minyak atsiri (*C.aurantifolia, C.hystrix, C. microcarpa)* adalah 4%,3,5%, 4%.

Kesimpulan

Minyak atsiri (*C.aurantifolia, C.hystrix, C.microcarpa)* pada konsentrasi berturut turut (4%, 3,5%, 4%). Semakin besar konsentrasi minyak atsiri, semakin besar zona hambat yang ditimbulkan.

Kata Kunci: aktivitas antibakteri, zona hambat, in vitro

Comparison Of Minimum Inhibitory Concentration Of *Cutibacterium acnes* From *C. microcarpa, C. hystrix, C. aurantifolia*

Abstract Background

Acne vulgaris (AV) is a chronic skin disorder of the pilosebaceous follicles. Antibiotic resistance in the treatment of AV is a problem, therefore alternative therapy options are sought, especially from natural ingredients, including essential oils (*C.aurantifolia, C.hystrix, C microcarpa)*

Objective

To determine the comparison of the MIC of *C. acnes* bacteria from essential oils (*C. aurantifolia, C. hystrix, C. microcarpa*) and compared with erythromycin (positive control), DMSO (negative control).

Methods

This study is a true experimental research method. Samples in the form of orange essential oils (C. aurantifolia, C. microcarpa, C. hystrix) were obtained from orange peels which were steam distilled after which they were diluting in stages by dilution with concentrations (4%, 3.75%, 3.5%, 3.25%, 2.75%, 2.5%, 2.25%, 2%, 1.75%, 1.5%, 1.25%, 1%) then mixed
with 50 micro bacteria, 50 micro samples of essential oils and 100 micro media and then incubated for 24 hours. After that, INT dye (Iodonitrotetrazolium chloride) was added.

Result

The Minimum Inhibitory Concentration of each essential oil (C. aurantifolia, C. hystrix, C. microcarpa) was 4%, 3.5%, 4%. Conclusion Essential oils (C. aurantifolia, C. hystrix, C. microcarpa) at successive concentrations (4%, 3.5%, 4%). The higher the concentration of essential oils, the larger the inhibition zone produced.

Keywords: antibacterial activity,zone of inhibition,in vitro