

ABSTRACT

THE EFFECTIVENESS OF BAY LEAF EXTRACT (*Syzygium polyanthum*) AS ANTIBACTERIAL COMPARED WITH BENZOYL PEROXIDE ON THE GROWTH INHIBITION OF BACTERIA *Cutibacterium acnes* THAT CAUSES ACNE (ACNE VULGARIS)

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Background. Bay leaves (*Syzygium polyanthum*) are contains secondary metabolites that are useful as antihypertensives, antioxidants, antiallergics and antibacterials. This study was conducted to determine the antibacterial effectiveness of bay leaves compared to benzoyl peroxide against *Cutibacterium acnes* bacteria.

Methods. This research was conducted from September to October 2024 at the Microbiology Laboratory, Faculty of Medicine, University of Lampung. Bay leaves extract was obtained from the Botany Laboratory, University of Lampung using the maceration technique. The antibacterial activity of bay leaf extract was carried out *in vitro* using the well diffusion method on Mueller-Hinton Agar media.

Results. The results of this research indicate the presence of inhibition zones formed at bay leaf concentrations of 2.5%, 5%, 10%, 20%, 30%, 40%, and 60% with the highest inhibition at a concentration of 60%, which is 23.45 mm.

Conclusion. Bay leaves are effective as antibacterials against *Cutibacterium acnes*

Kata kunci: Bay leaf, *Cutibacterium acnes*, well diffusion

ABSTRAK

EFEKTIFITAS EKSTRAK DAUN SALAM (*Syzygium polyanthum*) SEBAGAI ANTIBAKTERI DIBANDINGKAN DENGAN BENZOIL PEROKSIDA TERHADAP DAYA HAMBAT PERTUMBUHAN BAKTERI *Cutibacterium acnes* PENYEBAB JERAWAT (AKNE VULGARIS)

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Latar belakang. Daun salam (*Syzygium polyanthum*) kaya akan kandungan metabolit sekunder yang bermanfaat sebagai antihipertensi, antioksidan, antialergi dan antibakteri. Penelitian ini dilakukan untuk mengetahui adanya efektivitas antibakteri pada daun salam dibandingkan benzoil peroksida terhadap bakteri *Cutibacterium acnes*.

Metode penelitian. Penelitian ini dilakukan pada bulan September sampai Oktober 2024 di Laboratorium Mikrobiologi Fakultas Kedokteran Universitas Lampung. Ekstrak daun salam didapatkan dari Laboratorium Botani Universitas Lampung dengan teknik maserasi. Aktivitas antibakteri ekstrak daun salam dilakukan secara *in vitro* menggunakan metode *well diffusion* pada media Mueller-Hinton Agar.

Hasil penelitian. Hasil penelitian ini menunjukkan adanya zona hambat yang terbentuk pada konsentrasi daun salam 2,5%, 5%, 10%, 20%, 30%, 40%, dan 60% dengan daya hambat tertinggi pada konsentrasi 60% yaitu sebesar 23,45 mm.

Simpulan. Daun salam efektif berperan sebagai antibakteri terhadap *Cutibacterium acnes*

Kata kunci: Daun Salam, *Cutibacterium acnes*, *well diffusion*