

ABSTRAK

Glory Shantana Saragi Napitu, NIM 4203510013 (2024). Uji Aktivitas Antibakteri Sediaan Facial Wash Ekstrak Etanol Daun Sarang Banua (*Clerodendrum fragrans* Vent Will) Terhadap Bakteri *Propionibacterium Acnes* Dan *Staphylococcus epidermis*

Facial wash merupakan cara yang paling efektif dan mudah untuk membersihkan kulit wajah untuk menghindari munculnya berbagai masalah kulit karena mampu membersihkan kotoran dan sebum. Jerawat adalah reaksi dari penyumbatan pori-pori kulit disertai adanya peradangan dan infeksi bakteri *Propionibacterium acnes* dan *Staphylococcus epidermis*. Tumbuhan sarang banua (*Clerodendrum fragrans* Vent Will) mengandung flavonoid, alkaloid, saponin, tannin yang berkhasiat sebagai antibakteri. Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri sediaan *facial was* berbahan aktif ekstrak etanol daun sarang banua dalam menghambat pertumbuhan bakteri *Propionibacterium acnes* dan *Staphylococcus epidermis* penyebab jerawat. Metode yang digunakan adalah metode difusi cakram. Rancangan percobaan adalah Rancangan Acak Lengkap dengan lima perlakuan yaitu . ekstrak dan sediaan facial wash dibuat dalam 3 formulasi dengan konsentrasi ekstrak 10%, 20%, 30%, kontrol positif kloramfenicol dan kontrol negative DMSO. Hasil penelitian menunjukkan bahwa aktivitas antibakteri ekstrak etanol daun sarang banua pada konsentasi 10%, 20%, dan 30% terhadap *P. acnes* diperoleh rata-rata zona hambat 10,3 mm, 11,0 mm, dan 11,3 mm. Pada *S.epidermis* konsentrasi ekstrak 10%,20% dan 30% didapatkan rata-rata zona hambat 9,06 mm, 9,73 mm, dan 10,5 mm. Konsentrasi optimal ekstrak daun sarang banua untuk menghambat pertumbuhan bakteri *P. acnes* pada konsentrasi 30% sebesar 11,3 mm dan *S.epidermis* pada konsentrasi 30% sebesar 10,5 mm. Aktivitas antibakteri sediaan facial wash terhadap bakteri *Propionibacterium acnes* pada konsentrasi 10%,20%, dan 30% diperoleh rata-rata zona hambat 7,6 mm, 8,5 mm dan 9,3 mm. Pada *Staphylococcus epidermis* sediaan facial wash konsentrasi10%,20% dan 30% diperoleh rata-rata zona hambat 7,06 mm, 8,43 mm, dan 9,93 mm. Konsentrasi optimal untuk menghambat pertumbuhan *Propionibacterium acnes* pada konsentrasi 30% sebesar 9,30 mm dan *Staphylococcus epidermis* pada konsentrasi 30% sebesar 9,93 mm. Hasil uji fisik dan kimia menunjukkan bahwa ketiga sediaan facial wash memiliki bentuk sediaan cair, aroma khas daun sarang banua, warna hijau homogen, pH 5, viskositas 256,9039 cP dan tanpa iritasi. Hasil pengujian aktivitas antibakteri dan sifat fisik dan sifat kimia pada sediaan *facial wash* ekstrak daun sarang banua disimpulkan bahwa formulasi F3 merupakan formulasi sediaan *facial wash* sarang banua (konsentrasi 30% ekstrak) yang paling optimal.

Kata kunci : Sarang banua (*Clerodendrum fragrans* Vent Wil), *Propionibacterium acnes*, *stahpylococcus epidermis*, facial wash

ABSTRACT

Glory Shantana Saragi Napitu, NIM 4203510013 (2024) Antibacterial activity of Sarang Banua facial wash preparation from ethanol extract of sarang banua leaves (*Clerodendrum fragrans* Vent Will) against propionibacterium acnes and staphylococcus epidermis bacteria.

Facial wash is the most effective and easy way to clean facial skin to avoid the appearance of various skin problems because it is able to clean dirt and sebum. Acne is a reaction to blockage of skin pores accompanied by inflammation and infection with the bacteria *Propionibacterium acnes* and *Staphylococcus epidermis*. The banua nest plant (*Clerodendrum fragrans* Vent Will) contains flavonoids, alkaloids, saponins, tannins which have antibacterial properties. This study aims to determine the antibacterial activity of facial wash preparations made from the active ingredient ethanol extract of Banua nest leaves in inhibiting the growth of *Propionibacterium acnes* and *Staphylococcus epidermis* bacteria that cause acne. The method used is the disc diffusion method. The experimental design was a Completely Randomized Design with five treatments, namely, extracts and facial wash preparations made in 3 formulations with extract concentrations of 10%, 20%, 30%, positive control chloramphenicol and negative control DMSO. The results showed that the antibacterial activity of ethanol extract of banua nest leaves at concentrations of 10%, 20%, and 30% against *P. acnes* obtained an average inhibition zone of 10.3 mm, 11.0 mm, and 11.3 mm. In *S. epidermis* extract concentrations of 10%, 20% and 30%, the average inhibition zone was 9.06 mm, 9.73 mm and 10.5 mm. The optimal concentration of banua nest leaf extract to inhibit the growth of *P. acnes* bacteria at a concentration of 30% was 11.3 mm and *S. epidermis* at a concentration of 30% was 10.5 mm. The antibacterial activity of facial wash preparations against *Propionibacterium acnes* bacteria at concentrations of 10%, 20% and 30% obtained an average zone of inhibition of 7.6 mm, 8.5 mm and 9.3 mm. In *Staphylococcus epidermis* facial wash preparations with concentrations of 10%, 20% and 30% obtained an average zone of inhibition of 7.06 mm, 8.43 mm and 9.93 mm. The optimal concentration to inhibit the growth of *Propionibacterium acnes* at a concentration of 30% was 9.30 mm and *Staphylococcus epidermis* at a concentration of 30% was 9.93 mm. The results of physical and chemical tests showed that the three facial wash preparations had a liquid dosage form, a distinctive aroma of banua nest leaves, a homogeneous green color, a pH of 5. a viscosity of 256.9039 CP and no irritation. The results of testing the antibacterial activity and physical and chemical properties of the Nest Banua leaf extract facial wash preparation concluded that the F3 formulation was the most optimal formulation for the Nest Banua facial wash preparation (30% extract concentration).

Keywords : Sarang banua (*Clerodendrum fragrans* Vent Wil), *Propionibacterium acnes*, *staphylococcus epidermis*, Facial wash