FORMULASI DAN EVALUASI SEDIAAN SALEP EKSTRAK BUAH RANTI HIJAU *(Solanum Ningrum L.)* SEBAGAI ALTERNATIF ANTIBIOTIK

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ABSTRAK

Tingginya kasus resistensi antibotik di Indonesia akibat penggunaan yang tidak tepat, baik secara dosis, ketidakpatuhan, maupun kurangnya pengetahuan terkait antibiotik. Kejadian ini berdampak hingga peningkatan angka kematian. Masalah ini membuat Sektor Kesehatan Indonesia menargetkan pengembangan antibiotik baru di tahun 2029. Buah ranti hijau memiliki potensi sebagai alternative antibiotik dengan kandungan senyawa flavonoid, tannin, saponin, dan alkaloid yang terbukti memiliki aktifitas antibiotik. Dalam penelitian ini, buah ranti hijau diekstrak lalu dijadikan zat aktif dalam pembuatan sediaan salep. Basis salep yang digunakan yaitu basis larut air dengan tiga variasi formula yang dibedakan pada konsetrasi basis. Untuk mengetahui kelayakan secara fisik, dilakukan uji evaluasi yang terdiri dari uji organoleptik, uji homogenitas, uji pH, uji daya sebar, uji viskositas dan uji hedonik. Hasil yang didapatkan dari ke 6 uji tersebut terhadap 3 formula salep didapatkan untuk formula 1 warna coklat (++), bau khas buah ranti hijau, tekstur setengah padat (++), homogen, pH 6.17, luas daya sebar rata rata 5,6cm dengan penambahan luas rata rata 0,133 setelah diberi bobot 100gr dan viskositas 9450 cPas. Formula 2 warna coklat (+), bau khas buah ranti hijau, tekstur setengah padat (+), homogen, pH 5.61, luas daya sebar rata rata 5,8cm dengan penambahan luas rata rata 0,133 setelah diberi bobot 100gr dan viskositas 8550 cPas.

Formula 3 warna coklat, bau khas buah ranti hijau, tekstur setengah padat, homogen, pH 5.33, luas daya sebar rata rata 6,033cm dengan penambahan luas rata rata 0,1 setelah diberi bobot 100gr dan viskositas 7250 cPAS. Hasil uji hedonik parameter warna paling disukai pada formula 3 dengan rata rata 3,47, sedangkan parameter aroma dan tekstur, formula 2 paling disukai dengan rata rata 3,5 dan 3,83. Secara keseluruhan hasil uji fisik, formula 2 merupakan yang paling disukai.

Kata Kunci: Antibiotik, Buah Ranti Hijau, Salep, Uji Evaluasi

FORMULATION AND EVALUATION OF GREEN RANTI FRUIT EXTRACT OINTMENT (Solanum Ningrum L.) AS AN ANTIBIOTIC ALTERNATIVE

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ABSTRACT

The high cases of antibiotic resistance in Indonesia are due to inappropriate use, both in terms of dosage, non-compliance, and lack of knowledge regarding antibiotics. This incident has an impact on increasing mortality rates. This problem has made the Indonesian Health Sector target the development of new antibiotics in 2029. Green ranti fruit has the potential as an alternative antibiotic with the content of flavonoid, tannin, saponin,and alkaloid compounds which have been proven to have antibiotic activity. In this study, green ranti fruit was extracted and then used as an active substance in making ointment preparations. The ointment base used was a water-soluble base with three variations of formulas that were distinguished by the base concentration. To determine the physical feasibility, an evaluation test was carried out consisting of organoleptic tests, homogeneity tests, pH tests, spreadability tests, viscosity tests and hedonic tests. The results obtained from the 6 tests on the 3 ointment formulas were obtained for formula 1 brown color (++), distinctive odor of green ranti fruit, semi-solid texture (++), homogeneous, pH 6.17, average spread area of 5.6cm with an average area addition of 0.133 after being given a weight of 100gr and a viscosity of 9450 cPas. Formula 2 brown color (+), distinctive odor of green ranti fruit, semi-solid texture (+), homogeneous, pH 5.61, average spread area of 5.8cm with an

average area addition of 0.133 after being given a weight of 100gr and a viscosity of 8550 cPas. Formula 3 brown color, distinctive odor of green ranti fruit, semi-solid texture, homogeneous, pH 5.33, average spread area of 6.033cm with an average area addition of 0.1 after being given a weight of 100gr and a viscosity of 7250 cPAS. The hedonic test results of the color parameter were most preferred in formula 3 with an average of 3.47, while the aroma and texture parameters, formula 2 were most preferred with an average of 3.5 and 3.83. Overall, the results of the physical test, formula 2 was the most preferred.

Keywords: Antibiotics, Green Ranti Fruit, Ointment, Evaluation Test