

INTISARI

SEPTIAN NUGROHO, 2023, PENGARUH VARIASI HPMC TERHADAP MUTU FISIK DAN STABILITAS SEDIAAN EMULGEL MINYAK ATSIRI DAUN KEMANGI (*Ocimum basilicum* L.), KARYA TULIS ILMIAH, PROGRAM STUDI D-III FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI SURAKARTA. Dibimbing oleh Drs. apt. Widodo Priyanto, MM.

Daun kemangi memiliki senyawa aktif yang bersifat antibakterial yaitu minyak atsiri. Minyak atsiri daun kemangi bersifat hidrofobik sehingga sesuai diformulasikan menjadi emulgel. Penelitian ini menggunakan *gelling agent* berupa HPMC, yang berperan dalam penentuan sifat dan karakteristik sediaan emulgel. Tujuan penelitian ini adalah untuk mengetahui pengaruh variasi konsentrasi HPMC terhadap mutu fisik dan stabilitas sediaan emulgel minyak atsiri daun kemangi.

Emulgel minyak atsiri daun kemangi dibuat dalam 3 formula dengan variasi konsentrasi HPMC 1%, 3% dan 5%. Sediaan emulgel yang dihasilkan diuji mutu fisik emulgel meliputi organoleptis, homogenitas, pH, viskositas, daya lekat, daya sebar, tipe emulsi, daya proteksi dan stabilitas. Hasil data dianalisis menggunakan program SPSS *Statistic version* 26.0 dengan metode ANOVA *one-way* dan *Paired Sample T-test*.

Hasil penelitian menunjukkan bahwa dengan adanya perbedaan konsentrasi HPMC di setiap formula menyebabkan hasil uji mutu fisik (meliputi organoleptis, homogenitas, pH, viskositas, daya lekat, daya sebar, tipe emulsi, daya proteksi) dan uji stabilitas yang berbeda-beda. Formula dengan hasil uji paling baik adalah formula 2 dengan konsentrasi HPMC 3%.

ABSTRACT

SEPTIAN NUGROHO, 2023, THE EFFECT OF HPMC VARIATIONS ON THE PHYSICAL QUALITY AND STABILITY OF BASIL LEAF ESSENTIAL OIL EMULGEL PREPARATIONS (*Ocimum basilicum* L.), SCIENTIFIC PAPERS, D-III PHARMACY STUDY PROGRAM, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY SURAKARTA. Supervised by Drs. apt. Widodo Priyanto, MM.

Basil leaves have active compounds that are antibacterial, namely essential oils. Basil leaf essential oil is hydrophobic so it is suitable to be formulated into emulgel. This study used a gelling agent in the form of HPMC, which plays a role in determining the properties and characteristics of emulgel preparations. The purpose of this study was to determine the effect of variations in HPMC concentration on the physical quality and stability of basil leaf essential oil emulgel preparations.

Emulgel essential oil of basil leaves is made in 3 formulas with variations in HPMC concentration of 1%, 3% and 5%. The resulting emulgel preparation is tested for the physical quality of emulgel including organoleptic, homogeneity, pH, viscosity, adhesion, dispersion, emulsion type, protective power and stability. The data results were analyzed using the SPSS Statistic version 26.0 program with the one-way ANOVA method and the *Paired Sample T-test*.

The results showed that the difference in HPMC concentration in each formula caused physical quality test results (including organoleptic, homogeneity, pH, viscosity, adhesion, dispersion, emulsion type, protection power) and different stability tests. The formula with the best test results is formula 2 with an HPMC concentration of 3%.