ABSTRAK

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Program Studi : Farmasi
Judul : Formulasi Gel Antiinflmasi Ekstrak Sereh Dapur (*Cymbopogon citratus* DC.) Stapf dengan Gelling Agent Na CMC

Sereh dapur (*Cymbopogon citratus DC*.) Stapf mengandung saponin, tanin, dan flavonoid, secara tradisional teh dari daun sereh dapur bermanfaat sebagai antiinflmasi. Penelitian ini bertujuan untuk memformulasikan ekstrak sereh dapur dalam bentuk sediaan gel antiinflamasi. Penelitian dilakukan dengan cara membuat ekstrak sereh dapur secara maserasi menggunakan etanol 70%, maserat diuapkan di *rotary evaporator* pada suhu 40ºC, kemudian dievaluasi. Ekstrak kental sereh dapur konsentrasi 6%, 8% dan 10% dibuat menjadi sediaan gel menggunakan *gelling agent* Na CMC 6%. Gel yang dihasilkan dievaluasi karakteristik fisik, kimia, stabilitas dan uji antiinflamasi gel. Uji antiinflamasi dilakukan dengan metode penurunan udema menggunakan 24 mencit (*Mus musculus* L.) jantan. Ekstrak sereh dapur yang dihasilkan mengandung senyawa flavonoid, tanin, saponin dan alkaloid. Karakteristik gel ekstrak sereh dapur yang dibuat berbentuk semi padat, berwarna coklat dan coklat tua, berbau khas sereh dapur, homogen, memiliki pH 5,54–5,62, nilai viskositas antara 57000-73000 cps, mempunyai sifat alir pseudoplastis, bobot jenis antara 1.055-1.078 g/cm^3, memiliki daya lekat kisaran 231-252 detik, daya sebar berada di range 3490.11-3021.20 mm^2. Sediaan gel ekstrak sereh dapur konsentrasi 6%, 8% dan 10% stabil selama 21 hari pada suhu kamar dan memiliki efek antiinflamasi. Efek antiinflamasi tertinggi dihasilkan oleh gel ekstrak sereh dapur konsentrasi 10% dengan penurunan diameter udema 67,79% pada kaki mencit jantan.

Kata kunci :
Sereh dapur (*Cymbopogon citratus* DC.) Stapf, Gel, Antiinflamasi, Na CMC, Mencit (*Mus musculus* L.).

ABSTRACT

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Study program : Farmasi
Titel : Anti-inflammatory Gel Formulation of Lemongrass Extract (*Cymbopogon citratus* DC.) Stapf with Gelling Agent CMC-Na

Lemongrass (*Cymbopogon citratus* DC.) Stapf contains saponins, tannins, and flavonoids, traditionally lemongrass tea is usefull as an anti-inflammatory. This study was conducted to formulate the extract of lemongrass to the gel dosage forms of anti-inflammatory. The research was conducted by making extract of lemongrass by macerating using ethanol 70%, macerate was evaporated in the rotary evaporator at 40ºC, then evaluated. The extract of lemongrass with concentrations 6%, 8% and 10% ware made into gel using 6% gelling agent CMC Na. The gel produced was evaluated for physical, chemical, stability and gel antiinflammatory tests. The anti-inflammatory test was carried out by the method of decreasing udema using 24 male mice (*Mus musculus* L.). The result of phytochemical screening the extract of lemongrass contain flavonoids, tannins, saponins and alkaloids. The extract of lemongrass gel has the characteristics of semi-solid, brown and dark brown colored, fragant of lemongrass, homogeneous, pH 5.54–5.62 according to skin pH, the value of the viscosity is between 57000-73000 cps, pseudoplastic rheology, specific gravity between 1,055-1,078 g/cm^3, adhesiveing strength of the range 231-252 seconds, spreadd ability of the range 3490.11-3021.20 mm^2. The extract of lemongrass gel with concentrations 6%, 8% and 10% were stable for 21 days at room temperature and had anti-inflammatory effects. The highest antiinflammatory effect was produced by extract of lemongrass gel with concentrations 10% as indicated by the decrease diameter of the udema 67.79% in the feet male mice.

Keyword :
Lemongrass (*Cymbopogon citratus* DC.) Stapf, Gel, Anti-inflammatory, CMC Na, Mice (*Mus musculus* L.).