INTISARI

Seledri (*A. graveolens*) merupakan tanaman herbal yang terbukti sebagai antifungi. Penelitian ini bertujuan untuk membuat formulasi sediaan gel dari ekstrak etanolik herba seledri dengan basis Metochel K15M Premium EP (HPMC) yang memenuhi syarat evaluasi sifat fisik dan stabilitas selama penyimpanan serta mengetahui aktivitas antifungi terhadap *Malassezia furfur*.

Penelitian ini merupakan eksperimen formulasi gel ekstrak etanolik herba seledri dibuat dengan variasi konsentrasi HPMC (3%, 5%, dan 7%). Gel dievaluasi sifat fisik dan stabilitas (organoleptis, homogenitas, pH, viskositas, daya sebar, dan daya lekat) selama 28 hari. Uji organoleptis, homogenitas, dan pH dianalisis deskriptif. Uji viskositas dianalisis menggunakan *Kruskal-Wallis Test*. Uji daya lekat dan daya sebar dianalisis menggunakan ANOVA dilanjutkan dengan HSD. Pengujian aktivitas antifungi dilakukan terhadap formula terpilih menggunakan metode sumuran. Hasil yang diperoleh dibandingkan dengan kontrol negatif dan kontrol positif (krim ketokonazol 2%) kemudian dianalisis dengan *Kruskal-Wallis Test*.

Hasil penelitian menunjukkan variasi konsentrasi HPMC dapat mempengaruhi hasil evaluasi sifat fisik dan stabilitas sediaan gel. Semakin tinggi HPMC maka viskositas dan daya lekat semakin meningkat sedangkan daya sebar semakin menurun. Formula terpilih (Formula I HPMC 3%) dengan viskositas 60.500-82.800 cps, daya sebar 5,35-6,73 cm, dan daya lekat 5,10-7,60 detik menghasilkan presentase daya hambat sebesar 41,52% dengan zona hambat 17,10 mm.

Kata kunci: *Apium graveolens* (*A. graveoelens*), Gel, HPMC, Antifungi, *Malassezia furfur* (*M. furfur*).

ABSTRACT

Celery (*A. graveolens*) is a medicinal plant which has been proved for having antifungal activity. The purpose of this study was to create gel as a pharmaceutical formulation which was made by using the ethanolic extract of celery and Metochel K15M Premium EP (HPMC) as the base and this formulation should meet the criterion on physical properties and physical stability evaluation during the storing phase and also to find out the antifungal activity towards *Malassezia furfur*.

This study was worked out on gel formulations of ethanolic extract from celery which was made by various HPMC concentrations (3%, 5%, and 7%). The physical properties and physical stability (organoleptic, homogeneity, pH, viscosity, dispersive power, and adhesiveness) of the gel were evaluated for 28 days. The organoleptic, homogeneity, and pH parameters were analyzed using descriptive test. The viscosity parameter was analyzed using Kruskal-Wallis Test. The adhesiveness and dispersive power were analyzed using ANOVA test followed with HSD. Antifungal activity was analyzed using the chosen formulation using pitting method. Results obtained (% inhibitory) compared with the negative and positive controls (2% ketoconazole cream) were then analyzed using Kruskal-Wallis Test.

Results of the study showed that the various concentrations of HPMC could affect the physical and stability properties of the gel formulations. The higher the HPMC concentration, the viscosity and adhesiveness properties would increase, however, the dispersive power would decrease. The chosen formulation (Formulation I HPMC 3%) with the mean of the viscosity value was 60,500-82,800 cps, the dispersive power was 5.35-6.73 cm, and the adhesiveness properties was 5.10-7.60 second with the percentage of inhibition was 41.52% and the inhibition zone was 17.10 mm.

Keywords: *Aprium graveolens* (*A. graveolens*), Gel, HPMC, antifungal, *Malassezia furfur* (*M. furfur*).