

WOUND HEALING EFFECT OF WATERMELON FROST CREAM FORMULATION

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ABSTRACT

Watermelon frost powder as a traditional medicine has long been known for the therapeutic community, especially in China. It was used for symptomatic relief of ulcer, toothaches, mild cut and burn. The purpose of this study was to develop watermelon frost powder to cream. This is because biological half-life of powder report to be 3-4 hour and required multiple daily dosing for maintaining therapeutic effect throughout the day mean more fluctuation. Topical cream can avoid this drawback by increase the contact between the preparations and biological membrane. Watermelon frost cream was prepared with water base (cetyl alcohol, stearyl alcohol, steric acid, sodium lauryl sulphate, glycerin, isonononyl isonono and water) and oil base. Evaluation of the cream was done by observing the physical appearance, pH, particle size analysis, rheology analysis, consistency and accelerated stability test. The result show that watermelon frost cream 2% was stable which is contain pH 5.70, light grey in colour, good homogeneity, nil skin irritation, smooth, particle size is 12.48 μ m and the rheology test show the cream under plastic rheology. Other than that it was found that consistency of the cream closest texture character to a commercial cream and for accelerated stability studies showed the cream very stable in more than one year. Lastly, watermelon frost cream 2% was using to test the wound healing effect and compares with the standard Chlorhexidin Dihydrochloride (student *t*-test shows that $p = 0.5023$). The result indicated that the watermelon frost cream 2% showed no statistically significant difference in percent of wound size reduction as compared to the standard cream. In this study can be concluded that watermelon frost 2% powder was stable in cream formulation and has wound healing effect without causing allergic reactions.

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