

**ABSTRACT****THE INFLUENCE OF MENTHOL ADDITION TO DOSAGE FORM CHARACTERISTICS AND DICLOFENAC SODIUM PENETRATION IN VANISHING CREAM BASE  
(penetration used male Wistar rat skin)****Firizqiana Wira Swesty**

The present study was designed to observe the influence of menthol addition as enhancer to dosage form characteristics (organoleptic, pH, and viscosity) and diclofenac sodium penetration in vanishing cream base. In this experiment, menthol was not added in Formula control (menthol 0.0%). Mentol was added in Formula I (menthol 0.5%), Formula II (menthol 0.75%) and Formula III (menthol 1.0%). The result of dosage form characteristics study were formula I, II, and III had same colour with formula control. Formula II and III consistencies were more dilute than formula control and I. Formula I, II, and III smells were more menthol specific than formula control. Formula III viscosities were lower than formula control, I, and II. Formula I, II, and III pH were lower than formula control. The result of diclofenac sodium penetration study is flux. Flux is the cumulative amount of diclofenac sodium which is penetrated per  $\text{cm}^2$  per minute. It was analyzed by statistic programmed of SPSS 17.0 using one way analysis of variance (ANOVA). Flux of formula control was  $0,8857 \mu\text{g}/\text{cm}^2/\text{minute}$ ; formula I was  $0,8936 \mu\text{g}/\text{cm}^2/\text{minute}$ ; formula II was  $0,9734 \mu\text{g}/\text{cm}^2/\text{minute}$  and formula III was  $0,8777 \mu\text{g}/\text{cm}^2/\text{minute}$ . In ANOVA test, the result showed that there was no significant difference between formula.

Keyword (s) : diclofenac sodium, mentol, characteristics, flux, vanishing cream