ABSTRACT

SKIN IRRITATION TEST
OF TRETINOIN-SOLID LIPID NANOPARTICLES (SLN)
ON MALE ALBINO RABBIT

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This study aims at comparing the skin irritation caused by tretinoin on SLN and simple cream. The evaluation of the potential irritation was carried out by the Draize patch test on albino rabbits. The compositions of SLN and simple cream are tretinoin 0.05 %, cetyl alcohol 13 %, tween 80 12 %, propylene glycol 10 %, and phosphate buffer pH6.0 ± 0.5. tretinoin-SLN was produced by high shear homogenization method and stirred at 24000 rpm for 8 minutes. While the APMS-simple cream was made by using manual technique by stirring on magnetic stirrer 500 rpm for 10 minutes. The skin irritation was examined based on the observation on visual change of the skin, such as erythema and edema. Based on the observation, it can be concluded that the skin irritation caused by tretinoin on SLN is smaller than the one caused by simple cream. However, both of them are still in the same irritation category.

Keywords : Tretinoin, Solid Lipid Nanoparticles (SLN), skin irritation, Draize Patch Test.