ABSTRACT

INFLUENCE OF LIPID COMBINATION BEESWAX-GLISERIL MONOSTEARAT TO ANTI-INFLAMMATORY ACTIVITY OF SLN-APMS SYSTEM

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The purpose of this experiment is to know the anti-inflammatory activity of SLN-APMS system with the combination of lipid system beeswax-gliseril monostearat. The outcome of this experiment would subsequently be a scientific foundation for formulating a topical preparation of p-methoxynamic acid which safe, effective, and having quality.

This research used the complete random design, with 20 Wistar male rats which 7-8 weeks old and 115-200 g. They were divided into six groups. Group I was treated formula I which using combination lipid beeswax:GMS 100:0. Group II was treated negative control which using combination lipid beeswax:GMS. Group II was treated formula II which using combination lipid beeswax:GMS 50:50. Group III was treated formula III which using combination lipid beeswax:GMS 0:100. Group IV was treated negative control which using combination lipid beeswax:GMS 100:0. Group V was treated negative control which using

combination lipid beeswax:GMS 50:50. Group VI was treated negative control which using combination lipid beeswax:GMS 0:100.

The survey of hind paw oedema was done in 8 hours. From this data, it could be calculated the value of AUC of the oedema's thickness to the time, and then the researcher determined the percentage of anti-inflammatory capacity. The result showed that the effect of anti-inflammatory to the Carragenan-induced paw oedema in rats was significant. The most effective was FII, then the second was F1, and the less effective was FIII.

Keyword (s) : *p-Methoxycinnamic Acid, Solid Lipid Nanoparticles (SLN), combination lipid of Beeswax:GMS, anti-inflammatory*