

## ABSTRACT

### CHARACTERIZATION OF PRONIOSOME IBUPROFEN-SPAN 60- CHOLESTEROL MADE BY SOLVENT PROPANOL AND AQUEOUS PHASE PHOSPHAT BUFFER pH 6,0

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The aim of this study was to determine the characteristics of proniosome which consist of ibuprofen - Span 60 - cholesterol with molar ratio 2:1:0,75; 2:1:1; and 2:1:1,25. Proniosomes were prepared by coacervation phase separation method. The formulated proniosomes were characterized for organoleptic, morphology of proniosome, vesicle shape, vesicle size and entrapment efficiency.

Data analyze showed that organoleptic of formula with 0,75; 1; and 1,25 molar cholesterol was same. Transparent white, propanol scent, smooth texture and soft consistency. Proniosomes had a morphology square like that stacked each other. Based on reference, proniosome made by coacervation phase separation has a liquid crystal gel structure. Vesicles from proniosome hydration had spherical shape and smooth surface. The vesicle size from each formula (0,75 M; 1 M; and 1,25 M cholesterol) were 756,7 nm (PI 0,312); 717,5 nm (PI 0,323) ; and 511,2 nm ( PI 0,293). Entrapment efficiency of three formula with cholesterol 0,75 M; 1 M; and 1,25 M, were  $90,46\% \pm 1,75$ ;  $89,98\% \pm 1,39$ ; and  $89,30 \pm 0,22$  respectively.

In summary, three formulas had good characteristics. Moreover, proniosome provide opportunity to increase effectivity of ibuprofen as an analgetic and antiinflammatory drug.

Keywords :Proniosome, ibuprofen, cholesterol, liquid crystal gel, coacervation phase separation.