ABSTRACT

CHARACTERIZATION OF PRONIOSOME IBUPROFEN - SPAN 60 - CHOLESTEROL USING PROPAanol SOLVENT AND Aqueous PHASE 0,1% GLYCEROL

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The aim of this study was to determine characteristic of ibuprofen which consist of ibuprofen - Span 60 - cholesterol with molar ratio 2:1:0.75, 2:1:1, and 2:1:1.25. There were three formula in this study. Evaluation of each formula were included by organoleptics (odor, colour, and consistency), proniosome morphology using light microscope, niosome morphology using Scanning Electron Microscope (SEM), niosome size used Particle Analyzer, and drug entrapment. Results of organoleptic tests were formula had propanol odor, white colour, and solid consistency. Evaluation used light microscope at 1000x magnification showed spherical shapes that had light edges. The next observation was Scanning Electron Microscope (SEM) up to 50000x magnification. Niosome size resulted 692 nm (formula I), 957.6 nm (formula II), and 1152.3 nm (formula III), for % drug entrapment, the result was 91.91 ± 1.12 (formula I), 88.41 ± 3.10 (formula II), and 89.84 ± 1.71 (formula III). The best formula was formula I because of smallest size, biggest entrapment, and high homogeneity than other formula.

Keywords (s): Proniosome, Ibuprofen, Organoleptics, Drug Entrapment, Niosome Size.