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(57) Abstract :
Flutamide nanostructured lipid carriers and its use The present invention relates to Nanostructured Lipid Carriers (NLCs) formulation containing Flutamide. The present invention provides a Flutamide Nanostructured Lipid Carriers (NLCs) formulation comprising Flutamide, Glyceryl palmitostearate (Precirol® ATO 5) as a solid lipid, Linseed oil as a liquid lipid and polysorbate 80 (Tween® 80) and Polyoxyl 40 Hydrogenated Castor Oil (Kolliphor® RH 40) as the surfactants. Flutamide-loaded NLCs were fabricated by the melt-emulsification ultrasonication method. The optimized formulation reveals a controlled in vitro release of the active ingredient in 1% sodium lauryl sulphate dissolution media of not less than about 88.15 ± 1.16% after 24 h. The optimized Flutamide-loaded NLCs showed a high encapsulation efficiency of 97.7±4.98%. The invention also relates to the use of the Flutamide NLCs for treating prostate cancer.

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