عنوان مقاله:

Preparation, Description and Evaluation of the Lethality Acid Loaded Liposomal Nanoparticles Against in Vitro Colon and Liver Cancer

محل انتشار:

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خلاصه مقاله:

Today, the use of nanoparticles as carriers in the science of drug delivery is of particular importance. Improving drug performance and reducing side effects due to changes in the pharmacokinetic properties of the drug are special benefits of drug Nano-carriers. Monolayer and bilayer Nano -liposomes were synthesized by reverse phase evaporation and thin film hydration with HEPES buffer and Snoike operation, respectively. Scanning electron microscopy and transmission electron microscopy examinations show that Pegylated Nano-Phytosomes have a spherical shape and much less aggregation is observed compared to non-Pegylated Nano-phytosomes. In order to evaluate the rate of drug release and the effect of peeling on the quality of drug release, dialysis bag method was used. The results of drug release indicate the rapid release of the free drug compared to the release of the drug from Glycyrrhizic acid-loaded Nano-Phytosomes. The results of apoptosis test also showed equal distribution of DNA of healthy cells and sphericity of cell nucleus. In order to investigate the effect of cell mortality in the monolayer nano-liposomes section, two HepG۲ and KATO III cell lines were used and in the bilayer Nano-Phytosomes section, two cell lines DLD-۱ and LIM-۲۴۰۵ related to colon cancer were used.

کلمات کلیدی:

cancer, Drug release, Nano liposome, Nano-Phytosome, Cisplatin, Glycyrrhizic acid