

Abstract:

The present review compiles the applications of lipid nanoparticles mainly solid lipid nanoparticles (SLN), nanostructured lipid carriers (NLC) and lipid drug conjugates (LDC) in parenteral delivery of pharmaceutical actives. The attempts to incorporate anticancer agents, imaging agents, antiparasitics, antiarthritics, genes for transfection, agents for liver, cardiovascular and central nervous system targeting have been summarized. The utility of lipid nanoparticles as adjuvant has been discussed separately. A special focus of this review is on toxicity caused by these kinds of lipid nanoparticles with a glance on the fate of lipid nanoparticles after their parenteral delivery in vivo viz the protein adsorption patterns.