Colloidal Drug Delivery Systems; Its Potentials and Applications in the Pharmaceutical Area

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Colloidal drug delivery systems have been applied in pharmaceutical area for its potentials for oral delivery, skin permeation enhancement and targeting of the therapeutic drugs. Many kinds of colloidal drug delivery systems including liposome, microemulsion, micelle system and solid lipid nanoparticle are reported for these purposes because they are able to solubilize, enhance the bioavailability of poorly water soluble drugs, control the drug release profiles, enhance trans-biomembrane permeation and give targetability functions toward specific organ and cells.

We have studied about the potentials of the colloidal drug delivery systems in the view point of skin permeation, enhancement of solubility and bioavailability employing liposome, microemlsion, polymeric micell and solid lipid nanoparticle using ascorbyl palmitate, ibuprofen, nitroglycerin and genistein as model drugs.