Chapter – II

Aim and Objectives of the Study
2. AIM AND OBJECTIVES OF THE STUDY

AIM OF THE STUDY

➢ To formulate, evaluate and to study the efficacy of Dorzolamide HCl niosomal \textit{in-situ} gel ocular drug delivery system for reduction in intra ocular pressure.

OBJECTIVES OF THE STUDY

➢ To formulate niosomes using different ratios of surfactant (Span) series, cholesterol and drug (Dorzolamide HCl) by using thin film hydration technique.

➢ To evaluate and characterize the formulated niosomes.

➢ To optimize the best formulation based on entrapment efficiency and \textit{in vitro} release studies and to develop ocular niosomal \textit{in-situ} gel using carbopol and hydroxy propyl methyl cellulose as gelling agents.

➢ To characterize the formulated niosomal \textit{in-situ} gel.

➢ To optimize the best niosomal \textit{in-situ} gel formulation based on the gelling capacity and \textit{in vitro} drug release.

➢ To study \textit{ex-vivo} permeation studies and to compare the formulated niosomal \textit{in-situ} gel with the marketed product.

➢ To carry out the \textit{in vivo} ocular irritant test, aqueous humour analysis and intra ocular pressure lowering activity by animal studies.