Preparation and in vitro Evaluation of Acyclovir Suspension

Abstract

The suspension is one of the successful oral liquid dosage forms. It has many advantages such as increase the bioavailability of poorly water soluble drugs. Acyclovir is poor water soluble drug. It is antiviral agent, which commonly indicated for treatment of wide variety of viral infections; e.g., herpes simplex, varicella zoster in children and adults. In this study, acyclovir was prepared as suspension dosage form; sodium stearate was used as suspending and flocculating agent. The flocculating ability of sodium stearate was assessed via measuring the sedimentation volume. Acacia also was added as thickening agent and its ability to impart a more stable successful suspension was evaluated. In this work, the sedimentation volume, content uniformity and viscosity were studied for several formulas containing different ranges of sodium stearate (from 0.5% to 3) in combination with or without acacia at different concentrations (1% to 2%). Sodium stearate was found to be able to give a flocculated system at concentrations higher than 1%. The sedimentation volume (F) was found to be equals to (F= 1), which is an ideal flocculated system; however, the resultant dispersion is thick and very hard to be handled. Also the addition of acacia did not enhance the stability of the dispersed system.