Objective of present work:

Aceclofenac (NSAID) is available in various dosage forms like tablet, Injection, Jel etc. The recommended dose is 200 mg daily, taken as two separate 100 mg doses. Aceclofenac is superior form other NSAIDs as it has selectivity for cox-2, a beneficial cox inhibitor, well tolerated, better GI tolerability and improved cardiovascular safety when compared to other selective cox-2 inhibitors. It also shows increased matrix component synthesis and protection of chondrocytes against apoptosis. Aceclofenac has a faster and more potent effect than the other NSAIDs. It efficiently interferes with Neutrophils adhesion to endothelium and this effect may represent an additional relevant mechanism in its anti-inflammatory activity. Aceclofenac has an outstanding anti-inflammatory profile, involving a classical inhibition of prostaglandins E\textsubscript{2}, a decrease in the expression of several cytokines including interleukin and tumor necrosis factor. It also inhibits activated oxygen species production and influences cell adhesion. Thus it can be concluded that Aceclofenac may be a better option for the management of pain.

Aceclofenac has been shown to have potent analgesic and anti-inflammatory activities, similar to indomethacin and diclofenac and due to its preferential cox-2 blockade it has better safety than conventional NSAIDs with respect to adverse effects on gastrointestinal and cardiovascular system.

Patient suffering from rheumatoid arthritis feel more pain in morning period while patient suffering from osteoarthritis feel less pain in morning than night. Hence there is a need of development of Pulsatile drug delivery system intended for treatment of early morning stiffness and symptomatic relief from pain in patients with rheumatoid arthritis. which have several advantage over other dosage form like low dose, reduce dosing, predictable, reproducible and short gastric residence time, less inter- and intra-subject variability, Improve bioavailability, achieve a unique release pattern, improve patient comfort and compliance.

In the present investigation, an attempt has been make to prepare a Pulsatile drug delivery system of the Aceclofenac in order to release the drug at a controlled rate at specific time. Objective of present investigation are as follows.

2. To provide time-scheduled drug release for diseases like arthritis, osteoarthritis, spondylytis.

3. To determine a suitable amount of hydrophilic polymer HPC as coat forming materials in tablets. And to determine the effect of viscosity grade of HPC on the behaviour of the product containing different types of core composition and whether combinations of different viscosity grades of HPC (erodible & gellable) affect the lag time and drug release from different core composition.

4. To determine how different weight ratio of combination of HPC: EC (erodible: rupturable) as coat forming agent affect the Lag time and drug release from different core composition.

5. To develop and evaluate a floating-pulsatile drug delivery system intended for chronopharmacotherapy