Chapter 3  

Aims and Objectives  

3.1. AIMS AND OBJECTIVES:  

Peptic ulcer disease (PUD) is a serious gastrointestinal disorder that requires a well targeted therapeutic strategy. A number of drugs including proton pump inhibitors and H2 receptors antagonists are available for the treatment of peptic ulcer, but clinical evaluation of these drugs has shown incidence of relapse, side effects, and drug interactions. This has been the rational for the development of new antiulcer drugs and the search for novel molecules has been extended to herbal drugs that offer better protection and decreased relapse. Plants and other natural substances have been used as the rich source of medicine. All ancient civilizations have documented medicinal uses of this plant in their own ethnobotanical texts. The list of drugs obtained from plant source is fairly extensive (Patwardhan et al 1990).

Many remedies have been employed during the ages to treat ulcer. Most of the remedies were taken from plants and proved to be useful. In the indigenous system of medicine, the leaves of Acanthus llicifolius is reported to be useful in the treatment of ulcer.

However, the literature review revealed that Acanthus llicifolius has not been studied for the antiulcer activity. Hence, in the present study, the leaves of Acanthus llicifolius have been elected for phytochemical investigation and antiulcer activity on experimentally induced ulcers in rat.
3.2. OBJECTIVES OF THE STUDY:

The objectives of the present study are:

- Exploring the traditional medicines with proper chemical and pharmacological profiles.
- To conduct systematic phytochemical investigation of *Acanthus Illicifolius* (Sea Holy).
- Evaluation of acute toxicological studies *in vivo*.
- To evaluate the anti-ulcer activity of leaves of *Acanthus Illicifolius* (Sea Holy).
- Study of Histopathological and Biochemical changes of the ulcer induced rats.
- Screening and structural analysis of H2 receptor Proteins using advanced computational tools.
- Docking and molecular interaction studies on H2 receptor Flavonoles.