2.1. NEED FOR STUDY

Man, a unique creation of God, but a part of the universe. Like other living creatures man has been provided with food, water and shelter around his habitat. Eco-friendly tribals collect their food, fuel, fodder, housing material and herbal medicine from the forest where they live. Health care, which is a part of the traditional culture of the people, has become a profession in the modern industrial world. Synthetic medicines manufactured by the affluent and influential pharmaceutical industries have given rise to side effects that are more dangerous than the diseases they claim to cure. The world’s attention has again turned to traditional medicinal system.

Utilization of natural resources in indigenous products may not only bring about the self sufficiency in drugs which we talk of, but may perhaps provide safe and sure remedies for human ailments.

Liver is the largest and most complex internal organ in the body. It plays an important role in the maintenance of internal environment through its multiple and diverse activities. It plays central role in detoxification and excretion of many endogenous and exogenous compounds. Every year 18,000 people are reported to die due to liver cirrhosis caused by hepatitis. Although viral infection is one of the main causes of hepatic injury. Xenobiotics, massive drug therapy, environmental pollutants and chronic alcohol ingestion can also cause severe liver injury. Number of medicinal preparations have been advocated in traditional systems of medicine, especially in Ayurveda for treating liver disorders. In addition, use of many folk remedies mainly plant products is also quite common throughout India.

No effective treatment measures is available for liver disease in modern medicine so far. Herbal drugs, used in Indian systems of medicine, are however claimed to be effective and safe in such ailments. These are more often used in combination (Nadeem et al., 1996).

Polyherbal preparations are the products from medicinal plants. These are considered safe since they are natural in origin. Herbal formulations that have reached widespread acceptability as therapeutic agents in India include antidiabetics, hepatoprotective agents and lipid lowering agents. Pharmacological effects of many plants have been studied in various laboratories in India (Kuruvilla, 2002).
Hence by considering the above aspects, the present study was designed for the development and evaluation of polyherbal formulations for effective management of liver diseases using some of the indigenous plants.

The study includes selection of plant material, standardization, extraction and screening for hepatoprotective activity followed by development of polyherbal formulations. The following plants were used for the study of hepatoprotective activity.

1. *Butea monosperma* (Fabeceae)
2. *Bauhinia variegata* (Leguminosae)
3. *Ocimum gratissimum* (Lamiaceae)

The aim of the present study was to develop and evaluate polyherbal formulations for hepatoprotective action by utilizing some Indian medicinal plants.
2.2. OBJECTIVES OF THE STUDY

The main objectives of the present study were

- To conduct the systematic phytochemical investigation of plant material.
- To extract the specified parts of plants selected for the study.
- To standardize the crude drugs.
- To study the quality control aspects of extracts and fractions obtained.
- To screen the extracts and fractions for the hepatoprotective activity in their aforementioned category.
- To develop the formulations of the active principles showing significant activity in the above.
- To evaluate the developed formulations for their effectiveness against liver disorder.
2.3. PLAN OF WORK

The study is planned in different stages, as follows

• Review of literature.
• Collection, identification and authentification of medicinal plants.
• Processing of plant.
• Extraction of plant.
• Phytochemical investigations.
• Hepatoprotective activity of extracts.
• Development of polyherbal formulation – conventional solid dosage form.
• Evaluation of formulation.
• Hepatoprotective activity of formulation.