

CHAPTER-3

AIM & OBJECTIVE

Rationale:

Obese persons are preferred the use of herbal products for weight management because of following probable reasons:

- ✓ Health benefits of weight loss without any side effects,
- ✓ Less demanding than accepted lifestyle changes, such as exercise and diet,
- ✓ Easily available without a prescription,
- ✓ More easily accepted than a professional consultation with a physician or a nutritionist
- ✓ 100% natural origin and perception that natural means safe
- ✓ Herbal plants for weight reduction may be effective in the treatment of obesity and associated disorders.

Now a day, In India, 29.0% Men and 30.8% Women are suffering from Hyperlipidemia. It leads to angina, myocardial infarction, arrhythmias, stroke, peripheral arterial disease, abdominal aortic aneurysm, and sudden death. Two Major Factors [i] Primary Factors include reduced physical exercise or work & [ii] Secondary factors are related to side effects of Drugs like progestins, thiazide diuretics are responsible for Hyperlipidemia. Statins, Bile acid Sequestrants, Ezetimibe, are generally used as current therapeutic treatment for the Hyperlipidemia, having adverse effects like Rhabdomyolysis, Gastrointestinal disturbances, Myalgias respectively. Poly Herbal Formulations are safe and non-toxic in nature.

Consistent and safe herbal product for weight reduction is a need of developed and developing countries. In our literature survey, herbal plants showed potential effects on weight control. However, for the majority of products, more data are needed to assess the suitability as anti-obesity plants. Everyone knows that exercise with a controlled diet is the only way to keep in shape. However, your aim to be slim is obstructed by your urge to eat more and to snack in between meals. It's difficult for many people to resist food or snacks after a long and tiring work day. It's only natural! Tiredness and fatigue can also make people crave sugary food for energy. That's why many are unable to stick to healthy food choices every day. But now imagine the same situation with a controlled appetite. With your appetite under your control, you can lower the intake of calories.

To overcome the side effects of the current allopathic treatment, Herbal will be seen as the alternative medication.

Herbal medicines are playing a significant role in preservation of health in rural and remote areas, and provide the health for all. Utilization of Herbal medicine along with conventional drug defiantly helps health or cure diseases in the positive way. Poly Herbal Drug contains the lots of Chemical moieties, which will help to inhibit the whole pathway of lipid synthesis.

Objectives

- To develop herbal tablet by using herbal extracts of *Achyranthus aspera*, *Murraya koeinigii*, *Commiphora mukul* and *Garcinia Indica* Fruit
- To develop RP-HPLC method for estimation of marker compounds such as Gallic acid and Oleanolic acid
- To develop HPTLC method for estimation of marker compounds as Gallic acid, Oleanolic acid and E-Guggulosterone
- In Silico approach for evaluation of anti-obesity in the developed polyherbal formulation with respect to present marker compounds

Plan of work:

- Procurements of herbal extracts
- Phytochemical analysis of selected powdered
- Formulation and optimization of herbal tablet.
- HPLC and HPTLC method development of Gallic acid, Oleanolic acid and E-Guggulsterone.
- In Silico approach for evaluation of anti-obesity in the developed herbal formulation with respect to present marker compounds