3.

Aim & Plan

Of

Present Work
In the present era, herbal renaissance is blooming across the world. Herbal therapy provides rational means for the treatment of many internal diseases, which are considered to be obstinate and incurable.

Numbers of alternative therapies practiced around the globe are principally based on herbs. The need of present day is validation of the traditional claims of these plants in order to reason them in the modern context.

There are challenges ahead for researchers in Ayurved for validating the claims of the Ayurvedic treatment in understanding therapy, to make system globally acceptable. This requires a highly integrated approach that combines the best of the traditional wisdom and modern scientific knowledge and expertise.

Asthma is a very common long-term condition that affects your airways and breathing. Approximately one adult in 13 is currently being treated for asthma in the UK. Asthma can be a life-threatening disease if not properly managed.

Modern medicines meant for treating allergy & asthma are anti histamines, cortico-steroids, sodium chromolyn, xanthines, beta-agonists, leukotriene agents and broncho- dilators etc.

These medications treat only the symptoms of asthma & allergy-suppressing inflammation. They do not treat the underlying cause. The medicines or asthma have numerous undesirable side effects like heart ailments, decreased immunity, dental problems, various psychiatric illnesses, premature aging, diminished libido and impotency.

Asthma can never be cured or controlled by pumping our body with factory made medicines, laboratory designed molecules, artificially
made chemicals and steroids. It is the artificial environment like this that caused asthma in first place.

The best way to tackle allergy & asthma and live a healthy life is to live in tandem with nature, while it may not be in our hands to change much. It will be best to go in for natural ways of healing Allergy & Asthma. Surely, a significant healing for asthma and allergy is possible without any side effects with certain combination of herbs.

Three plants named bark of Albizia lebbeck (L) Benth (Mimosaceace), aerial parts of Euphorbia hirta Linn (Euphorbiaceace) and Sphaeranthus indicus auct non L (Asteraceae) commonly known as ‘Shirisha’, ‘Dudheli’, and ‘Gorakhmundi’ respectively and are reported as antiasthmatic drugs in Ayurveda. Systematic studies with respect to standardization of these drugs are not reported in literature; therefore an attempt has been made to develop their standardization profile.

Present study deals with standardization of the plants (Albizzia lebbeck, Euphorbia hirta, Sphaeranthus indicus) by modern analytical techniques and antiasthmatic activity using following models.

i) Mast cell degranulation by compound 48/80.

ii) Heterologus percutaneous anaphylaxis model.

iii) Egg albumin induced bronchospasm in conscious guinea pigs.
PLAN OF WORK:

1. Identification and collection of plant materials.
2. Pharmacognostical studies of plant materials.
3. Preparation of plant extracts and fractionation of compound(s).
4. Isolation and identification of chemical/biomarker compound(s).
5. Qualitative and quantitative analysis of chemical marker compound(s) using High Performance Thin Layer Chromatographic and Gas Chromatographic methods.
6. Antiasthmatic activity of plant fractions using different \textit{in-vitro} and \textit{in-vivo} models.
7. Antiasthmatic activity of developed formulation by various other models.