INTRODUCTION

The word Shwasa indicates both physiological and pathological state of respiration. Tamaka Shwasa (Bronchial Asthma) is one of the five types of pathological condition of Shwasa.¹ It is described as difficulty in taking breath. It is manifested through pranavaha srotos. Vata gets obstruction by kapha and travels in pratiloma gati and in turn causes Shwasa.² According to W.H.O, there are approximately 300 million people suffering from Bronchial Asthma and another 100 million will be added to this by the end of the year 2025. The prevalence in India is 3.5 % of the total global incidence.³ Curative aspects need to be explored, where many effective drugs are mentioned in Ayurveda. Vata-kaphahara chikitsa is the sheet anchor of the treatment of Tamaka Shwasa. Bharangi is one of the drug which is useful in the treatment of Tamaka Shwasa. The word Bharangi literally means that which is glorious. In sanhita kala this drug was widely used for treatment of shwasa,Kasa, Sotha, Vataja disorders. It is highly valued and important ingredient of many popular Ayurvedic formulations like, Bharangyadi kasaya, Bharangyadi churna, Ayuskriti, Satyadi churna, Kankasav, , Mahavatagajankusa rasa. Bharangi is found to have anti-inflammatory, antiallergic, antiallergic, antioxidant and Hepato protective properties.⁴⁻⁵

HABITAT AND HABIT

Clerodendrum serratum Linn is found more or less throughout India in forest up to altitude 1500 meters. It is perennial shrub 3-8 ft. high.

Root: Mature root hard, woody, and cylindrical; upto 5 cm thick; external surface light brown having elongated lenticels.

Stem: Usually quadrangular.

Bark: Thin and easily separated from a broad wood which shows marked medullary rays and concentric growth rings in a transversely cut surface; short fractures; acid taste.

Leaf: Leaves usually three at a node, sometimes opposite oblong or elliptic, serrate, alternate without stipules.

Flower: Flowers are many conspicuous, arranged in dichotomous cymes, the whole forming a lax more or less pubescent sub-persistent, obvate to lanceolate, pubescent, and often coloured.

Fruit: four lobed purple drupes.

Seed: With or without endosperm

ABSTRACT

Respiratory conditions are among the leading causes of morbidity and mortality in elderly people worldwide. Most important are Bronchial Asthma and Chronic Bronchitis which are correlated with Tamaka Shwasa and kaphaja kasa respectively according to Ayurveda. Ayurvedic concept is of the opinion that Tamaka shwasa is a yaypa vyadhi. Bharangi is one of the drugs of Ayurvedic materia medica which is mainly indicated in respiratory disorders. It is botanically identified as Clerodendrum serratum Linn which belongs to family Verbenaceae. It has reported that root possess significant anti-inflammatory activity as well as anti-allergic activity, and can be useful in Asthma. Some of the chief constituents found in the plant are D-mannitol, hispidulin, cleroflavone, apigenin, scutellarein, serratagenic acid, acteoside, verbascoside, oleic acid, cleredermic acid, 7-sitosterol, β-sitosterol, cholestanol, clerosterol, campesterol and 24-ethyl cholesterol.

SYNONYMS

Padma13-flowers resemble lotus flowers Bharangi13-it destroys disease, and it is having power equivalent to sun Kasagniv4-relieves kasa Vatari15- useful in Vata disorders

GUNA – KARMA16

Bharangi is katu, tikta, kasaya rasa, usna virya, laghu and raksha guna, katu vipaka, kaphavata shamaka. It isuseful in Shwasa, Kasa, Sotha, Vranaropana, Vata vyadhis, Gulmaghna, Jvaragna.

PHYTOCHEMISTRY 17, 18, 19

The major groups of chemical constituents present in the Clerodendrum genus are carbohydrates, phenolics, flavonoids, terpenoids and steroids.

Carbohydrates

Generally, D-mannitol has been found in the roots of the Plant.

Flavonoids

The isolated flavonoids like hispidulin and cleredermic acid possess potent anti-oxidant, anti-microbial, anti-asthmatic, anti-tumour and CNS binding activities. Other flavonoids isolated from plants areapigenin, 7-hydroxy flavanone, scutellarein and pentolinarigenin

Terpenes

Terpenes isolated from plant like betulin, oleic acid, cleredermic acid, betulinic acid, friedelin and monomelittoside had weak CNS activity, strong molluscidal and fungi toxic activities.

Phenolics

Some of the phenolic compounds isolated were serratagenic acid, acteoside, indolizino and verbascoside which possess biologically activities such as anti-oxidant, anti-microbial, anti-proliferative, antihypertensive and anti-cancer activities.
Steroids
Steroids are terpenes based on the cyclopentane perhydroxy phenanthrene ring. Chiefly, γ-sitosterol, β-sitosterol, cholesterol, clerosterol, campesterol and 24-ethyl cholesterol were reported to be isolated from the plant.

PROBABLE MODE OF ACTION OF DRUG
The pathogenesis of Shwasa first involves only vitiation of Vata dosha all over the body. This vitiated Vata which is in Uruha sthana in turn creates raksha, sankocha and khara in Pranavaha srotas. Vitiated Vata affects the prakruti Kapha in Uruha sthana, which results in Vilomata of Prana vayu through obstruction to its natural Gati by Kapha. Sometimes, Kapha gets vitiated independently or through Rasa dhatwagnimandya its Mala, i.e. Kapha gets located in Uruha sthana and causes obstruction to normal motion of Vayu which ends up with Vilomata of Vayu. In the third type, both Vata and Kapha get vitiated independently along with the production of Ama visha. This contributes to the manifestation of Shwasa, Bharangi having Katu, Tikta, kasaya rasa, Usna Virya, Katu Vipaka and Kapha Vataghna properties seem to quite naturally antagonize the Shwasa Roga, which is Kapha-Vata Pradhan disease.

REFERENCES IN SAMHITAS AND NIGHANTUS
Charaka samhita21- Acharya Charaka explained Bharangi as useful in Apasmaraka.
Vagbhatta – Bharangi as agreya dravya in Shwasa
Chakradatta22,23– useful in Gandamala, Galaganda, Karanda, Shwasa
Vangasen24, 25– useful in Vataya Kasa, Bradhana, Karanda
Bhavaprakash Nighantu26- Sotha, kasa, Shwasa, Peenasa, Jwara.
Dhanwantari Nighantu27- Gulma, Jwara, Asrug, Vata rogas, Rajayakshma, Peenasa
Raja Nighantu28- kasa, Shwasa, Sopha, Vrana, Krimi rogas, Daha, Jwara

THERAPEUTIC INDICATIONS
<table>
<thead>
<tr>
<th>Disease</th>
<th>Form</th>
<th>Part Used</th>
<th>Anupana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shwasa</td>
<td>Kalka</td>
<td>Moola</td>
<td>Usna jala</td>
</tr>
<tr>
<td>Vataya kasa</td>
<td>Ghrita</td>
<td>Moola</td>
<td>Usna jala</td>
</tr>
<tr>
<td>Apasmaraka</td>
<td>Arista</td>
<td>Moola</td>
<td></td>
</tr>
<tr>
<td>Asrug</td>
<td>Swarasa</td>
<td>Moola</td>
<td></td>
</tr>
<tr>
<td>Jwara</td>
<td>Swarasa</td>
<td>Moola</td>
<td></td>
</tr>
<tr>
<td>Gulma</td>
<td>Swarasa</td>
<td>Moola</td>
<td></td>
</tr>
<tr>
<td>Peenasa</td>
<td>Swarasa</td>
<td>Moola</td>
<td></td>
</tr>
<tr>
<td>Galaganda Gandamala</td>
<td>Pralapa</td>
<td>Moola</td>
<td></td>
</tr>
<tr>
<td>Kuranda</td>
<td>Pralapa</td>
<td>Moola</td>
<td></td>
</tr>
<tr>
<td>Sotha</td>
<td>Churna</td>
<td>Beeja</td>
<td>Ghrita</td>
</tr>
<tr>
<td>Vrana</td>
<td>Pralapa</td>
<td>Moola</td>
<td></td>
</tr>
<tr>
<td>Krimi roga</td>
<td>Churna</td>
<td>Moola</td>
<td></td>
</tr>
<tr>
<td>Bradhana</td>
<td>Churna</td>
<td>Moola</td>
<td>tandalodaka</td>
</tr>
</tbody>
</table>
REFERENCE