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**A REVIEW ON TRADITIONAL PRACTICES OF HAVERI DISTRICT,  
KARNATAKA, INDIA WITH SPECIAL REFERENCE TO  
PRANAVAHA SROTAS (RESPIRATORY DISORDERS)**

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**Abstract**

Haveri district is exactly in the centre of Karnataka and an under explored area having mixed vegetation being blessed with rich diversity of herbal medicinal plants and well known for the various traditional practices. Nearly 28% of the plants are estimated to be used in ethno medicine. During ethno-botanical exploration of Haveri district traditional practitioners were documented for the identification of the plants, local name, parts used, method of preparation of the medicine, mode of administration, duration, and their parameters for the diagnosis of different diseases. During this study it was found that 52 folklore practitioners are using 23 different plants in treating disorders related with respiratory system. Among them drugs like Pippali, Vasa, Maricha, Lashuna, Ajamoda, Haridra, Twak, Kantakari etc used in Kasa (Cough), Shwasa (Asthma) and Pratisnyaya (Rhinitis) have classical references in Ayurveda and uses like flower of *Spilanthus acmella* Linn in cough, latex of *Pergularia daemia* Linn in nasal congestion etc are anubhuta prayogas. Use of flower of hibiscus in whooping cough, compound drug preparations including Swarna and Abhraka bhasma with other herbs like *Croton sparsiflorus* Linn is also found to be effective in treating respiratory disorders. The relative popularity level (RPL) and informant consensus factor (ICF) were assessed. Research is needed to develop some selected species and find more information from the indigenous communities to preserve the knowledge of rare medicinal plants.

**Keywords:** Anubhuta prayoga, Abhraka bhasma.

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**Introduction**

India is a vast country with a huge tropical variation. The characteristics of the plant vary according to the region and climate of an area. 70% of India's medicinal plants are found in the tropical zone. The proportion of medicinal plants recorded in the dry and moist deciduous tropical forests is higher as compare to those recorded in the tropical evergreen forests. Nearly 28% of the plants are estimated to be used in ethno medicine. Haveri district is exactly in the center of Karnataka and it is bounded by six districts. The district is spread

across an area of 4848 Sq.Kms with an average of 691.1 mm of annual rainfall. Currently the botanical survey of India has revealed that Haveri is an under explored area having rich black soil, tropical climate and having mixed vegetation being blessed with rich diversity of herbal medicinal plants and well known for the various traditional practices.<sup>1</sup>

Herbal remedies are considered the oldest forms of health care known to mankind on this earth. Prior

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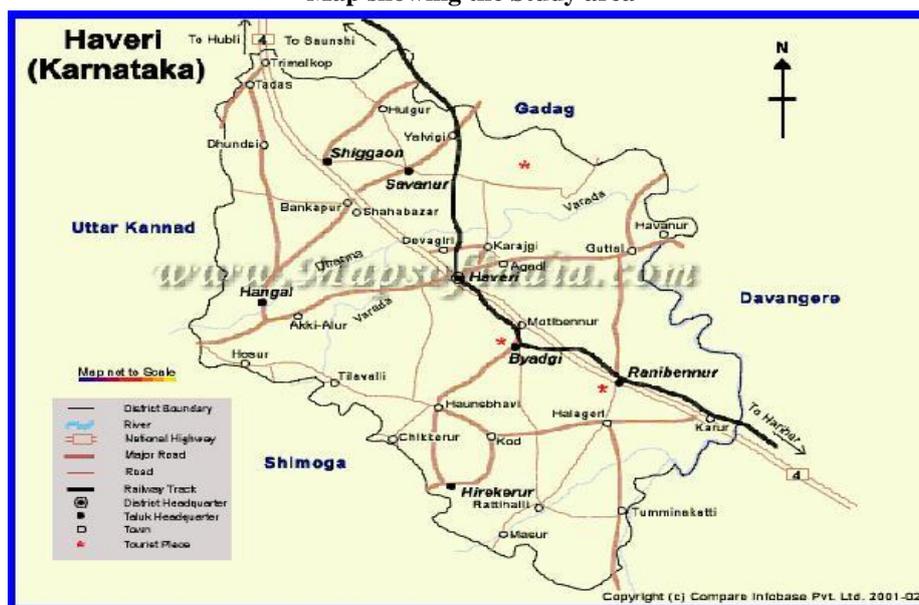
to the development of modern medicine, the traditional systems of medicine that have evolved over the centuries within various communities, are still maintained as a great traditional knowledge base in herbal medicines. The present study was carried out for the Documentation of folklore practitioners of Haveri district, Karnataka and to assess fidelity level, relative popularity level and informant consensus factor among the plants

surveyed during folklore documentation with special reference to respiratory disorders. Herbarium of rare specimens and photograph of medicinal plants was also conducted.

### Materials and Methods

Study area is located in the centre of Karnataka situated between 14.28 & 14.59 latitudes and 75.07 & 75.38 longitudes.

Map showing the Study area



- Format and data sheets for the documentation of folklore practices were prepared along with the consent letter.
- 52 folklore practitioners were documented for the identification of the plants, local name, parts used, method of preparation of the medicine, mode of administration, duration, and their

parameters for the diagnosis of different diseases.

- Herbarium\ Photograph of selected species was documented. Specimens were identified with the aid of floras.
- Audiovisual medias were used during the documentation for the authenticity and rapid assessment method was conducted.

Table No. 01: Showing the results of folklore documentation

Disease	Plant	Part used	Method
Cough	<i>Spilanthus acmella</i> Linn	Flower	Chewed orally
Common cold and nasal block	<i>Pergularia daemia</i> Linn	Latex, leaf	Leaf juice and latex used as nasal drops
Asthma	Ajamoda, jeeraka, Ashwagandha, pippali and vasa	Fruit, root, leaf	Used orally as powder or as paste
Asthma and cough	Haridra, maricha, lavanga, shunti, twak and vidanga	Root, fruit, bark	Used orally in powder form
Wooping cough	Japa pushpa	Flower	Given orally with jaggery
Asthma	Doorva and madhu	Whole plant	Plant juice used orally with honey
cough	Tulasi and kumari	leaf	Chewed orally
Asthma	Pippali and <i>Croton sparsiflorus</i> L and Swarna, abhraka bhasma	Fruit, leaf	Used orally in powder form
Asthma	Kantakari	seed	Seeds used for fumigation through nose
Cough with sputum in children/ productive cough	Lashuna, maricha, lavanga and ashwagandha	Fruit, root	Licked in the form of thin paste

## Results and Discussion

During this study it was found that among 52 folklore practitioners 23 different plants are used in treating disorders related with respiratory system.



Latin name: *Pergularia daemia* Linn

Local name: Kuntagana balli

Quercetin an active compound of this plant is responsible for its antihistamine, anti-inflammatory, antioxidant properties and hence found effective in allergies and respiratory diseases like allergic rhinitis and bronchitis. A new bioactive compound, 6-(4, 7-dihydroxy-heptyl) quinine, a novel agent which is proved to be responsible for antibacterial activity.



Latin name: *Ocimum sanctum* Linn

Local name: Tulasi

Best known active compounds identified and extracted in *Ocimum sanctum* Linn are eugenol (an essential oil) and ursolic acid having antioxidant, immunomodulating, anti-inflammatory, antibacterial, antiviral properties with a wide margin of safety. In classical Ayurveda it is used as an anti-

tussive and recent human trials have validated this, the data showing that this herb can increase lung capacity as well as reduce labored breathing.<sup>2</sup>



Latin name: *Ferula assafoetida* Linn

Local name: Hingu

Eating asafetida is also found effective in curing chronic cough bronchitis, infant cold, mild fever, breathing problem and asthma by the presence of its essential oil. Asafoetida increases the activity by the local stimulant effect in bronchial mucous and acts as mucolytic.



Latin name: *cinnamomum zeylanicum* Linn

Local name: Chakke

Honey and cinnamon would keep viral and bacterial infections at bay. Eating honey and cinnamon strengthens immune system. The active phyto constituents are cinnamaldehyde and eugenol. Essential oil is proved antibacterial against gram positive and negative. Aqueous extract of *Cinnamomum zeylanicum* Linn inhibits the replication of the influenza virus.



*Curcuma longa* Roxb(Arishina): *Allium sativum*Linn(Bellulli): *Adhatoda vasica*Linn(Adusoge)

For simple mild lung inflammation turmeric root is useful. If there is hotter inflammation or infection in the lungs, there will be symptoms like fever, sore throat, red tongue with a yellow greasy coating, sticky sputum, and difficulty in breathing. Choose from herbs that reduce inflammation and fight infection - in addition to turmeric root, use tulsi and leavers of vasa. If there is tension or spasm in the lungs, it needs to be relaxed by using the drug vasa leaves. If there is dampness and mucus in the lungs, there will be congestion, wheezing, a heavy sensation, cough, craving for hot drinks, and a thick greasy coating on the tongue. Herbs that reduce mucus in the lungs include garlic bulb and vibhitaki fruit( *Terminalia bellarica* linn).<sup>3</sup>



Latin name: *Trigonella foenum-graecum* Linn  
Local name: Menthe

The seed part of fenugreek is a mucilaginous herb with affinity for the lymphatic and respiratory systems. It is an excellent herb to use for conditions involving excess mucus or phlegm such as asthma. It has bitter principles, saponins, which have a dissolving and loosening properties, which may explain why it has been used to dissolve thick or hardened mucus and aid in its expulsion from the body. It may help expel toxic waste from the lymphatic system as mucus secretions come from the lymphatic system. Mucilage is also helpful in the digestive process.



Latin name: *Solanum xanthocarpum* Linn  
Local name: Nelagulla

Apigenin a flavonoid isolated from *Solanum xanthocarpum* is an anti allergic agent resulting in significant inhibition to broncho spasm and inflammatory reactions in respiratory tract.<sup>4</sup>



Latin name: *Hibiscus arnottianus* Linn  
Local name: Bili Dasavala

Hibiscus possesses strong antibacterial properties and has been found to be beneficial in treating bacterial infections of the respiratory tract. It also helps to alleviate ailments such as whooping cough and venereal disease. High in vitamin C, it is a good herbal remedy for colds and other viral infections and by strengthening the immune system, it helps the body fight off infections and recover faster. Hibiscus has antispasmodic properties that are useful for preventing and relieving muscle spasms and cramps.<sup>5</sup>



Latin name: *Adhatoda vasica* Linn

Local name: Adusoge

*Adhatoda vasica* acts as antitussive, bronchodilator and antiasthmatic. The chief alkaloid Vasicine has bronchodilatory and antihistaminic properties. The leaves are a source of vitamin C and carotene. Vasicine also gives strong respiratory catalyst exercise.



Latin name: *Aloevera* Linn

Local name: Lolesara

Aloe Vera contains a substance called Acemannan. Acemannan is extremely effective at acting on the immune system to activate as well as stimulate T-cells, monocytes and macrophages. Acemannan acts quickly to surround a foreign body, and from there, it starts to destroy bacteria. Once coughing and wheezing has commenced indicating the latent phase of asthma, the beta 2 stimulants are unable to control the coughing. Inflammatory cells connected to the immune system then bring about the production of bradykinin, interleukin and prostaglandins. Aloe Vera juice helps to reduce the severity of the latent phase of the disease. It also contains substances that inhibit inflammation such as Campesterol, B-Sitosterol, bradykinase, phyto steroids and Lupeol.<sup>6</sup>



Latin name: *Embelia ribes* Linn<sup>7</sup>

Local name: Vayuvidanga

The main active components in the *Embelia ribes* extract is Embelin (Embelic acid: 2,5-dihydroxy-3-undecy-1, 4- Benzoquinone. Other components are christembeline, an alkaloid and a resinoid and volatile oil. Utility of *Embelia ribes* in the treatment of Asthma and bronchitis is by the virtue of its principle Embelin acting as H1-receptor blocking or bronchidilating activity.



Latin name: *Piper longum* Linn

Local name: Hippiali

Piperine the active principle of *Piper longum* effectively treats asthma by :

- Reduction of Th2 cytokines (interleukin-4, interleukin-5) eosinophil infiltration.
- Reduction of thymus and activation regulated chemokine, eotaxin-2 and interleukin-13 mRNA expression (especially transcription of nuclear factor-kappaB dependent genes) in lung tissue.
- Reduced interleukin-4, interleukin-5 and eotaxin levels in bronchoalveolar lavage fluid, and histamine and ovalbumin-specific immunoglobulin E production in serum.



Latin name: *Cuminum cyminum* Linn

Local name: Jeerige



The essential oil from this plant possess anti-microbial property. In addition, there is evidence of the relaxant effects of the volatile oil from this plant on smooth muscles which may be due to a stimulatory effect of the plant on  $\alpha$ -adrenoceptors and an inhibitory effect on histamine H1 receptors thus found to be effective in asthma.<sup>8</sup>



*Croton sparsiflorum* Linn (Nonasutuga)<sup>9</sup>



*Cynodon dactylon* Linn (Karikegida)<sup>10</sup>

The present research paper deals with the traditional practices of Haveri district with special reference to respiratory disorders. Use of Pippali, Vasa, Maricha, Lashuna, Ajamoda, Haridra, Twak, Kantakari etc used in Kasa, Shwasa and Pratishyaya have classical references in Ayurveda and use of *Croton sparsiflorum* Linn, *cynodon dactylon* Linn in shwasa etc are anubhuta prayogas. (Practiced by their ancestors and have no classical referances)

Apart from single drug therapy compound formulations including rasoushadhies (Metallic preparations) are also found effective in treating different respiratory diseases. In most of the cases fruits were used predominantly (34.78%) for drug preparation followed by seeds (30.43%), leaves (19.56%), whole plant (8.69%) and roots (6.52%). Among the drug formulations powder (67.88%), juice (21.42%) were frequently used and others form 10.71%.

Herbal remedies are considered the oldest forms of health care known to mankind on this earth. Traditionally, this treasure of knowledge has been passed on orally from generation to generation without any written document and is still retained

by various indigenous groups around the world. Moreover, this study will promote a practical use of botanicals and must be continued focusing on its pharmacological validation. Further detailed chemical studies and screening for medicinal properties will provide cost effective and reliable source of medicine for the welfare of humanity.

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