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Traditional medicinal plants used for the treatment of asthma in Bhubaneswar, Odisha

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Abstract

Asthma, issue of the respiratory system in which the entries that empower air to go into and out of the lungs occasionally limited, causing hacking, wheezing, and shortness of breath. Asthma is one in every of the foremost common chronic diseases in fashionable society and it's evident that its incidence and severity are increasing, but little is thought concerning the plants utilized in the management of the sickness. The current study is an approach to find some cheap treatment for asthma. Herbs have been utilized from the early human advancement on wards as a medication for a wide range of disease. Disregarding the improvement in the health science and creation of modern synthetic drugs, plants still involve an essential part in the modern and traditional system of medicine in everywhere throughout the world. Asthma is well recorded in the primitive Ayurvedic texts. In Sanskrit, asthma is known as Svasaroga, Svasa means "breathing in and out," and roga means "disease." According to the ancient Ayurvedic text, the Charak Samhita, there are five types of Asthma: Mahasvasa, Urdhvasvasa, Chinnavasava, tamakasvasa and Ksudrasvasa. Amongst these 5 kinds first 3 aren't curable. Tamak-shwas is controllable and is difficult to remedy. The ultimate one is curable. To find the answer of different medicinal plants used for asthma we carried out a survey among the different Ayurvedic physician available in Bhubaneswar city as well as different medicine inhabitants. During interviewed or consulted about 36 doctors and 13 medicine inhabitants in the town from which 26 accepted to give a response during survey. We prepared a questionnaire to know the views of their treatment on asthma. The results are very much encouraging and help in treatment of asthma.

Keywords: Asthma, ayurvedic, Charak, drugs, herbs

1. Introduction

Illnesses and other related diseases are unsurprising throughout everyday life and have driven man to discover courses by which they could be treated. Plants have dependably been an effective asset of treatment from nature. Such practice is as old as human presence and structures a basic piece of traditional medicine. The term therapeutic is connected to a plant shows that it has a substance or substances which modify valuably the physiology of debilitated warm blooded creatures and that it has been utilized by man for that reason [1]. Indigenous information is transmitted orally from age to age as folklore claims [2, 3] and added to the collection of a mind boggling abundance of learning and abilities [4, 5]. According to World health organization, Asthma is one of the major non communicable diseases. It is a chronic disease of the air passages of the lungs which inflames and narrows them. Some 235 million humans presently are afflicted by asthma. It is a not unusual disorder among children; maximum bronchial asthma-associated deaths arise in low- and decrease-center income countries. In line with the WHO, launched 2016 inside the month of December, there have been 383000 dying due to bronchial asthma in 2015 [6]. The most powerful hazard elements for growing allergies are inhaled materials and debris which could initiate allergic reactions or worsen the airlines. Remedy can control bronchial asthma. The synthetic drugs available are not cost effective. So we tried finding a cheap treatment for this common disease. Plants have been utilized from the early human advancement on wards as a medication for a wide range of disease and are cost effective as well.

2. Materials and Methods

2.1 Study Area

Bhubaneswar is a very old city in India's eastern state of Odisha, formerly Orissa. The city is lying between 20° 15' N latitude and 85° 52' E longitude.

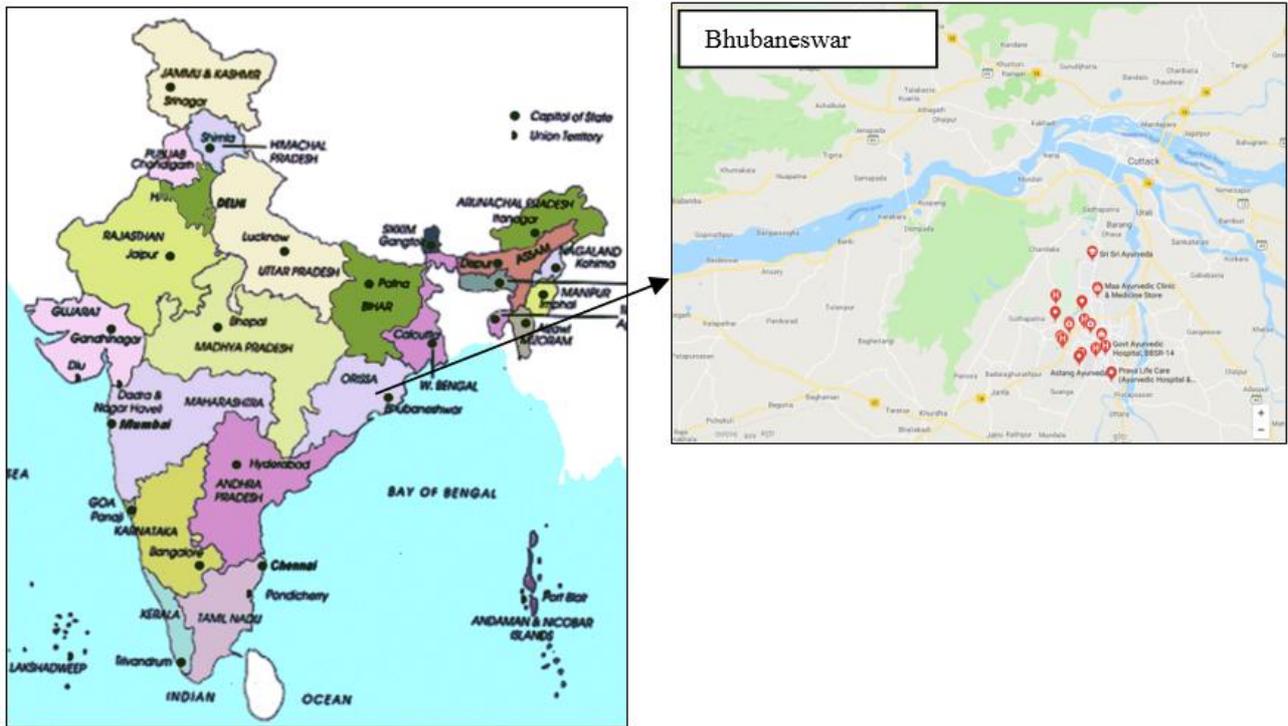


Fig 1: Map showing study area

2.2 Field Survey

Various tribal rich area and different ayurvedic hospitals situated in this area were surveyed. Folklore claims and data were documented along with voucher specimens [1].

2.3 Data Recording

The complete information regarding the plants, dosages, duration, process of preparation, mode of administration,

protection to be taken etc. was recorded in standard questionnaires (fig.2). Then Ayurvedic doctors and local healers were counselled who utilized herbs in treatment of Asthma. During study interviewed or consulted about 36 doctors and 13 local healers in the town (Bhubaneswar) from which 26 accepted to give a response during survey. The following questions were asked to different ayurvedic doctors and local healers:

MEDICINAL PLANTS USED AMONG THE AYURVEDIC PHYSICIANS OF BHUBANESWAR CITY FOR TREATMENT OF ASTHMA

1. Name of the physician:
2. Age:
3. Gender::
4. Qualifications: **BAMS** **Ayurveda Acharya** **M.D** **PHD.**
5. Professional experience (in years):
6. How many asthmatic patients are treated by in a month/year?
7. How many types of asthma are prevalent in Ayurveda?
8. What are they?
9. Which type of asthma is more common?
10. Which type of asthma is most harmful?
11. What are the diagnostic tools used for asthma?

SYMPTOMS <input type="checkbox"/>	PHYSICAL EXAMINATION <input type="checkbox"/>
BLOOD TEST <input type="checkbox"/>	FAMILY HISTORY <input type="checkbox"/>
ANY OTHER <input type="checkbox"/>	
12. What is the duration of treatment required for asthma?

13. Whether asthma is
 EASILY CURABLE DIFFICULT TO CURE RELAPSING
 UNTREATABLE

14. Is asthma associated with allergy
 YES NO CAN'T SAY

15. Is asthma seen in a particular season
 YES NO
 If yes then which season.....

16. What are the common medicinal plants used for treatment of asthma?

17. What are the medicinal plants used in acute attacks of bronchial asthma?

18. What are the medicinal plants used to prevent the episodes of bronchial asthma?

19. Mention at least 5 important single herbs prescribed for asthma and their details (from high to low priority wise)?

Sl. No.	Name of the drug	Local name	Scientific name	Parts used	Action	Use condition (Fresh/dried)	Dosage form	Dosage and adjuvants	Route of administration

20. Do you use other mineral based compound medicine to treat asthma along with herbs?

Fig 2: Standard Questionnaires

3. Results and Discussions

The result revealed that 13 different herbs which are prevalent among the healers and the ayurvedic doctors for the treatment of asthma. The observation and mode of use of these plants are described below:

1. *Justicia Adhatoda* L. (Family: Acanthaceae)

Vernacular name: Odia: Vasanga; Hindi: Vasaka; Sanskrit: Vasa; English: Malabar Nut

Mode of use

Decoction of leaf of *Justicia adhatoda* works as a bronchodilator, appearing as a respiration stimulant to help respiration issues. The addition of sugar or honey to the *Justicia adhatoda* tea allows triumphing over the bitterness.

2. *Ocimum sanctum* L. (Family: Labiateae)

Vernacular name: Odia: Tulasi; Hindi: Tulsi; Sanskrit: Arjaka; English: Holy Basil;

Mode of use

Decoction made up of *Trchyspermum* spp. (ajwain), *Ocimum sanctum* (tulsi), *Piper longum* (pepper), and *Zingiber officinale* (ginger) is beneficial natural expectorant for it. Tulsi is beneficial inside the remedy of respiration device disorders. A decoction of the leaves, with honey and ginger is an effective remedy for bronchitis, allergies, influenza, cough and cold. A decoction of the leaves, cloves and common salt also offers instant comfort in case of influenza. They should be boiled in 1/2 a litre of water until most effective half the water is left and upload then taken. Tulsi is an essential constituent of many ayurvedic cough syrups and expectorants. It facilitates to mobilize mucus in bronchitis and asthma. Chewing tulsi leaves also relieves bloodless and flu.

3. *Piper longum* L. (Family: Piperaceae)

Vernacular name: Odia: Pippali; Hindi: Pipli; Sanskrit: Chapla; English: Long Pepper

Mode of use

Medicinally valued part is fruit. Half a gram or one gram of its dried powder of seed ought to be taken two times a day with a touch Jaggary after food. It helps in relief of Asthma.

4. *Zingiber officinale* Rosc. (Family: Zingiberaceae)

Vernacular name: Odia: Ada; Hindi: Adrak; Sanskrit: Ardrika; English: Ginger

Mode of use

Rhizome is the most valuable and medicinally used part. Blend identical quantities of ginger juice, honey, and Pomegranate juice. Devour a tablespoon of this aggregate 2 - 3 times every day for great effects in asthma.

Boil the ginger pieces (or ginger powder) in a cup of water for five - 10 minutes to make a decoction. Add honey to beautify the flavour. It coasts and soothes the throat to relieve allergies. Drink the tea water 1 - 2 instances daily for pleasant outcomes.

5. *Alpinia galanga* (L.) Willd (Family: Zingiberaceae)

Vernacular name: Odia: Sugandhamula; Hindi: Barakhulanjan; Sanskrit: Dhumala; English: Siamese ginger

Mode of use

The dried rhizome powder is taken with warm water twice or thrice a day for two week after meal to cure asthma.

6. *Tinospora cordifolia* (Willd.) Hook.f. & Thomas. (Family: Menispermaceae)

Vernacular name: Odia: Guduchi, Hindi: Giloy; Sanskrit:

Amruta; English: Heartleaf moonseed

Mode of uses

The medicinally valuable part is the stem. Dry stems, with bark intact, constitute the drug of commerce. The stem extract significantly reduced bronchial spasms (allergic).

7. *Solanum virginianum* L. (Family: Solanaceae)

Vernacular name: Odia: Bheji-Baigana; Hindi: Kateli; Sanskrit: Kantakari; English: Yellow Berried Nightshade

Mode of uses

The parts used are the whole plant, root, fruit etc. 1-3g powder 40-80 ml of decoction are some of the dosages of the plant but mostly the dosages are according to condition of patient. Mode of administration is oral.

Tribal used fruits to cure asthma. They fried the fruits with "desi ghee" and given to patient for relief of asthma.

8. *Glycyrrhiza glabra* L. (Family: Fabaceae)

Vernacular name: Odia: Sirisha; Hindi: Muleti; Sanskrit: Jalayashiti, Klitaka, Yashtimadhu; English: Liquorice

Mode of use

Regular intake of liquorice root tea combined with ginger is treasured in bronchial asthma, bronchial and irritation. It is endorsed not to drink extra than 2-3 cups of this herbal tea in a day.

9. *Albizia lebbek* (Linn.) Benth. (Family: Mimosaceae)

Vernacular Name: Odia: Sirisa; Hindi: Saras; Sanskrit: Shitapushpa; English: Siris tree

Mode of uses

The decoction of stem bark is used to relief from asthma. The decoction is used in a dose of 50ml thrice a day for 6 week before food.

10. *Curcuma longa* L. (Family: Zingiberaceae)

Vernacular name: Odia: Haladi; Hindi: Haldi; Sanskrit: Haridra; English: Turmeric

Mode of uses

To alleviate blocked bronchi turmeric must be interested by salt jumbled together hot water. Licking one teaspoon of turmeric alongside ½ tsp of honey additionally gives comfort from congestion of bronchi.

Blend turmeric powder, banana ash and barley powder in identical proportions at the side of honey have this paste 4 to 5 instances in a day to do away with phlegm.

Blend turmeric powder, ghee and black pepper powder to make a paste and rubdown the chest and throat place, the use of this paste to lessen inflammation of the bronchioles.

Burn turmeric until purple hot and inhale the smoke. The smoke serves as a robust expectorant.

Boil a small piece of turmeric in milk and for sweeten the milk add old jaggery and feature it to reap remedy from allergies.

11. *Hedychium spicatum* Buch-Ham ex Sm (Family: Zingiberaceae)

Vernacular Name: Odia: Gandhasunthi; Hindi: Kapurkachari; Sanskrit: Shati; English: Perfume Ginger, Spiked Ginger Lily

Mode of uses

10 g powdered rhizome of *H. spicatum*, is used in bronchial asthma, Also useful in diminished appetite, hiccups, local inflammation etc. used in nausea, bronchial asthma, halitosis and vomiting. Part used is rizhome.

12. *Solanum indicum* L. (Family: Solanaceae)

Vernacular name: Odia: Dengabhegi; Hindi: Janglibhata; Sanskrit: Brihati; English: Black nightshade

Mode of uses

It is a Majaor ingredient of natural cough syrup containing 11 herbal elements together with *Solanum indicum*, *Ocimum sanctum*, *Curcuma longa*, *Adhatoda vasica*, *Piper cubeba*, *Aloe barbadensis* etc., could be very efficient in thinning of bronchial secretion in instances of acute bacterial tracheobronchitis.

13. *Sesbania grandiflora* (L.) Pers. (Family: Fabaceae)

Vernacular name: Odia: Agastee; Hindi: Agastya; Sanskrit: Drigapalaka; English: Vegetable humming bird

Mode of uses

Leaves of *S. grandiflora* have a non slimy bitter nature with a hot potency so it is effective against Khaphadosa. The decoction of leaf also used to cure asthma.

4. Conclusion

Herbal medicine has long been apperceived as one of the oldest forms of remedies utilized by humans. From the above study we conclude that plants play an immense role in treatment of Asthma in Bhubaneswar area. Synthetic drugs are effective against Asthma but they have numerous side effects, so plants are the cheapest and safest role in treatment of asthma.

5. Acknowledgement

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