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## Preparation of Vachadi syrup: Treatment for Pratishtaya

**Lowkesh Chandravanshi, Dr. Chethan Kumar VK and Nagaratna Jartarghar**

### Abstract

Among Nasagatha Rogas (Nasal disorders), most of the Acharyas described Pratishtaya (Rhinitis) with its complications which prove the seriousness of the disease. Acharya Sushruta mentioned that Pratishtaya is the disease condition in which Vata, Pitta and Kapha dusti were observed. The symptoms of Pratishtaya resembles to allergic rhinitis which is characterized by sudden and frequent attacks of sneezing profuse watery nasal discharge associated with nasal obstruction which is intermittent, watering of the eye, heaviness of head, respiratory distress and anosmia. Vachadi yoga is a medicine which is mentioned in Harita samhita, contains the ingredients like Vacha (*Acorus calamus*), Amalaki (*Phyllanthus emblica*), Vibhitaki (*Terminalia bellerica*) Haritaki (*Terminalia chebula*), Shunthi (*Zingiber officinale*), Yavani (*Trachyspermum ammi*). In the context of treatment, method of preparation is of utmost importance. In this article Vachadi syrup is prepared by using modern pharmaceutical equipments and during the process of preparation, the method of preparation of syrup (sharkar kalpna) explained by Ayurveda Acharyas has been incorporated.

**Keywords:** Vachadi syrup, pharmaceuticals, pratishtaya, rhinitis, Sharkara

### Introduction

In the modern day world, we don't have time for anything that can slow our race to achieve our set goals. A widespread ailment that affects us all, adult and child, is Pratishtaya (rhinitis). Pratishtaya affects most of the population. Overall prevalence of rhinitis was 26.1% in school going children [1]. It happens to each individual, depending on their level of immunity. Pratishtaya by word itself indicates that it is recurrent in nature. Even in Ayurveda it is said that Pratishtaya let it be Ekadoshaja or Bahudoshaja, if not treated properly may lead to Dusta Pratishtaya and later Kasa, or even Kshaya [2]. Vata is the main dosha and kapha pitta and Rakta are associated doshas. The symptoms include cough, sore throat, runny nose, and congestion in the nasal passage, fever, loss of appetite, itching and headache [3]. This article highlights the different steps and stages of preparation of Vachadi syrup.

### Materials and Method

#### Ingredients of the formulation [4]:

1. Vacha
2. Amalaki
3. Vibhitaki
4. Haritaki
5. Shunthi
6. Yavani
7. Sharkara (Sugar)

#### Vacha [5] (*Acorus calamus* Linn.)

*Acorus calamus* Linn belongs to the family Araceae. Vacha leaves have Beta-Asarone (27.4-45.5%), Rhizome- Acorenol (20.86%) Root- Isocalamendiol ([12.75%]). Volatile oil contains an Asaryaldehyde, Terpenoids, Calamine, Eugenol, Acolamone, acorenone, acoragermacrone, calamine, cis- & trans-asarone, camphene, cadalene, azulene, acoric acid, eugenol, telekin, calamenone preisocalamen-diol. Different part of Vacha have different properties like Rhizome and leaf have Anticarcinogenic and mitogenic towards human lymphocytes, Rhizomes have metal ailments, epilepsy, intermitted fever, cough, throat irritation etc. Extract used in memory disorder, learning performances, anti-aging effect etc.

Calamus oil have medical and insecticidal properties. Vacha also used in Unmada, apasmara, sthoulya, murcha, agnimandya, ajirna, krimi, jwara, swasa, kasa, vibandha, swarasada, atisara, mutradosha.

#### Properties and action of Vacha

Rasa - Katu, Tikta  
Guna - Laghu, Teeksna  
Virya - Usna  
Vipaka - Katu  
Dosha karma - Kapha-vata samaka  
Prabhava - Medhya  
Used part - Rhizome

#### Yavani <sup>[6]</sup> (*Trachyspermum ammi*)

*Trachyspermum ammi* Linn belongs to the family Apiaceae. Yavani have thymine, thymil, carvacrol, protein 17.1%, Calcium 1.52%, potassium 1.39%, minerals 7.9%, sodium 56%, fiber 21.2% riboflavin, nicotinic acid, tanin, floban, glycoside, essential oil and fixed oil, steroidal substances, volatile oil 2-4%, quercetin-3-rutinoside, r-terpinen. It is used in Aruchi, Pratishtyaya, pliharoga, sitajwara, krimiroga, tvagvikara, visa, vibandha, aptantraksa, kasa, swasa, arsha, udarshoola.

#### Properties and action of Yavani

Rasa - Katu, Tikta  
Guna - Ruksha, Laghu, Teeksna  
Virya - Usna  
Vipaka - Katu  
Dosha karma - Kaphavata shamaka, Pittavardhaka  
Part used - Fruit

#### Amalaki <sup>[7]</sup> (*Emblia officinalis* Linn.)

*Emblia officinalis* Linn belongs to the family Euphorbiaceae. Amalaki have gallic acid, tannic acid, sugar, albumin, calcium, vitamin c, Protein, fat, minerals, fiber, carbohydrate, nicotinic acid, procyanidin, lupeol, aldehyde. It's used as a rasayana and also used in Kasa, swasa, jwara, aruchi, vibandha, amlapitta, dristimadhya, agnimadhya, hridroga, Praeha, kshaya, daurbalya condition.

#### Properties and action of Amalaki

Rasa - Amlapradhana Panchrasa (lavanarashtra)  
Guna - Guru, ruksha, shita  
Virya - Shita  
Vipaka - Madhur  
Dosha karma - Tridosha hara, specially pittahara  
Part used - Fruit

#### Vibhitaki <sup>[8]</sup> (*Terminalia bellirica* Linn.)

*Terminalia bellirica* Linn belongs to the family Combretaceae. *Terminalia bellirica* have tannins, galic acid, egelic acid, ethyl gaillet, chebulegic acid, glucose, galactose, mannitol, fructose. Vibhitaki used in pratishtyaya, kasa, swasa, agnimandhya, charmaroga, vatavyadhi, anidra, trisna, krimiroga, netraroga.

#### Properties and action of Vibhitaki

Rasa - Kashaya  
Guna - Laghu, ruksha.  
Virya - Usna  
Vipaka - Madhur  
Dosha karma - Tridosha-hara  
Part used - Phala

#### Haritaki <sup>[9]</sup> (*Terminalia chebula* Linn.)

*Terminalia chebula* belongs to the family Combretaceae. Chemical constituents are present in haritaki are tannin, chebulic acid, corilagin, chebulinic acid, amino acid, sugar, kwinic acid.

#### Properties and action of Haritaki

Rasa - Kashaya pradhana Panchrasa (lavanarasarहित)  
Guna - Laghu, rukhsa  
Virya - Usna  
Vipaka - Madhur  
Dosha karma - Tridosha hara  
Part used - Fruit

#### Shunti <sup>[10]</sup> (*Zingiber officinale* Linn.)

*Zingiber officinale* Linn belongs to the family Zingiberaceae. Chemical constituents of Shunti are dried rhizome of ginger contains approximately (1-4) % of volatile oils. These are the medically active constituents of Shunti. They are also responsible for its characteristic odour and taste. The aromatic principles include Zingiberene & Bisabolene, while the pungent principles are known as gingerols and shagaols. Volatile Oil Components can vary greatly, depending on the country of origin. Main component of the volatile oil are zingiberene & arcurcume, neral, geranial, zingiberol, arylalkalane. Oil & resin are found just beneath the skin. Gingerol does not evaporate with oil. Its used in shoola, aamvata, adhyamana, atisar, slipada, kasa, swasa, hridroga, Shopha, arsha, hikka, vibhandha, jwar, kustha, agni-madya etc. Licking ginger juice with honey relieves hiccough & cold. It can help in the management of allergies & asthma by offsetting the effect of the platelet activating factor (PAP). PAP initiates inflammatory processes in allergy conditions.

#### Properties and action of Shunti

Rasa - Katu  
Guna - Laghu snigdha, tikhsna  
Virya - Ushna  
Vipaka - Madhur  
Dosha karma - Vata-kaphahar, deepana, bhedana  
Part used - Rhizome

#### Sharkara <sup>[11]</sup> (*Saccharum officinarum* Linn.)

*Saccharum officinarum* Linn belongs to the family Gramineae. Raw cane sugar contains Sucrose 96-97%, Reducing sugars-0.75-1.0%, Moisture - 0.75%, Ash - 0.5%. Sugar is direct source of Carbohydrate. 100 grams of sugar provides 400Kcal. It is advised that there is no specific nutritional or metabolic need for the addition of sugars to baby foods, as ingredients containing natural carbohydrates / sugars already provide enough energy for use as weaning food.

#### Properties and action of Sharkara <sup>[12]</sup>

Rasa : Madhura  
Guna : Guru, Snidha  
Virya : Sheeta  
Vipaka : Madhura  
Doshagnata : Vata pitta hara, Kaphakaraka  
Rogagnata : Daha, Raktavikara, Jwara, Chardi, Moorcha  
Karma : Deepana, Shukrala  
Part used : Root, juice, crystalline sugar, sugar powder

#### Collection and authentication of raw drugs

The raw drugs are collected from the SDM Pharmacy of Ayurveda, Udupi, Karnatka state, India. The drug analysis

and standardization was done at SDM centre for Research in Ayurveda and Allied Sciences, Udupi, Karnataka state, India

**Method of preparation**

The dried (Figure. 1–6) drugs are collected, with a quantity 1.33kg each. The drugs were soaked in cold water for overnight (Figure 7), next day kwatha (decoction) of drugs was prepared by adding 32ltr of water, boiled and reduced to 1/4<sup>th</sup> part and filtered, remnant is 8ltr (Figure 9), to this 5.6 kg of sugar is added & boiled (Figure11) on mild flame till 1hread consistency obtained (Figure 13). Total quantity of suspension obtained is 9ltr which is cooled down n bottled, into 200ml each. They are packed in plastic containers which are then sealed. Then the containers are labeled and made ready for distribution (Figure14).



**Fig 1:** Dried Vacha rhizome



**Fig 2:** Yavani Fruit



**Fig 3:** Amalaki Fruit



**Fig 4:** Vibhitaki Fruit



**Fig 5:** Haritaki Fruit



**Fig 6:** Shunti rhizome



**Fig 7:** Sheeta kalpan



**Fig 8:** Paka in 100 °C temperature



**Fig 9:** Prepared kwatha



Fig 10: Waste part



Fig 11: Paka in 80-85 °C temperature



Fig 12: Paka in 40-50 °C temperature



Fig 13: One thread consistency



Fig 14: Labeled syrup ready for distribution

### Precautions to be taken

1. Temperature is maintained in moderate fire 100 degree C.
2. The Syrup should be in single thread consistency form.
3. The syrup is packed on the cold stage.

### Temperature noted at different intervals

Initial stage- 100 °C

Material differentiate stage 10.15am – 70-80 °C

Sugar mixing stage - 80-85 °C

Last stage - 45 °C



Fig 15: Specific tests for paka lakshana

### Organoleptic parameters of finished product

- Colour: Dark brown colour
- Consistency: liquid form
- Smell: specific odour
- Taste: sweet with little pungent.

### Discussion

More practical approach must be incorporated in the field of Ayurvedic medicine manufacture even though the introduction of modern expertise in pharmaceutical sector has amplified the effectiveness of such medicinal formulations including those of Ayurveda<sup>13</sup>. The finished product, Vachadi syrup was dark brown in color and liquid in consistency which establishes the optimum presentation of syrup type of preparations. The specific odour of syrup is attributed to the properties of Vacha. The cumulative effect of Vacha, Amalaki, Vibhitaki, Haritaki, Shunti, Yavani, Sharkara, establishes the sweet with little pungent taste of syrup. A child who is suffering with rhinitis or cough, we can use Vachadi syrup.

### Conclusion

The special care should be taken to ensure that the finished products are completely safe and natural. The Ayurvedic Pediatric medicines manufactured should undergo strict quality tests according to the standards for ensuring complete safety in consumption by infants.

### References

1. www.childlineindia.org.in dated on 07/03/16.
2. Agnivesha, Charaka Samhita. by Prof. Kashinath sastri & Dr. Gorakha natha chaturvedi. Chikitsa sthana chapter 8/33.Varanasi. Chaukhambha bharti academy Edition. 2013, 282.
3. Agnivesha, Charaka Samhita. by Prof. Ravi Dutt tripathi. Chikitsa sthana chapter 26/106.Delhi. Chaukhambha Sanskrit pratishthan Edition. 2010, 641-642.
4. Harita, Harita Samhita. by Vaidya Jaymini Pandey. Third sthana 2/49 Varanasi. Chaukhambha Visvabharti Edition. 2010, 199.

5. Gyanendra Pandey, Dravyaguna-vijnana. Vacha, 2<sup>nd</sup> edition reprint, Chaukhambha krisnadas academy, Varanasi. 2004, 3:757.
6. Gyanendra Pandey, Dravyaguna-vijnana, Yavani. 2<sup>nd</sup> edition reprint, Chaukhambha krisnadas academy, Varanasi. 2004; 2:887.
7. Sastry JLN, Dravyaguna-vijnana, Amalaki. 3<sup>rd</sup> edition reprint, Chaukhambha orientation, Varanasi. 2012; 2:220.
8. Prof Lucas DS, Dravyaguna-vijnana, Vibhitaki. 3<sup>rd</sup> edition reprint, Chaukhambha Visvabharti, Varanasi. 2012; 2:158.
9. Prof Lucas DS, Dravyaguna-vijnana, Haritaki. 3<sup>rd</sup> edition reprint, Chaukhambha Visvabharti, Varanasi. 2012; 2:150.
10. Prof Lucas DS, Dravyaguna-vijnana, Shunti. 3<sup>rd</sup> edition reprint, Chaukhambha Visvabharti, Varanasi. 2012; 2:414.
11. Amandeep Singh, Uma Ranjan Lal, Hayat Muhammad Mukhtar, Prabh Simran Singh, Gagan Shah, Ravi Kumar Dhawan. Phytochemical profile of sugarcane and its potential health aspects. *Pharmacogn Rev.* 2015; 9(17):45-54.
12. Bhavamishra, Bhava Prakasha Nighantu. In: Amritpal Singh, editor. 1<sup>st</sup> ed. Delhi: Chaukhambha orientalia. 2007, 414-421.
13. Anjana R, Chethan Kumar VK. Preparation of Balabilwadi modaka: Ayurvedic complementary food. *The Pharma Innovation Journal.* 2016; 5(8):33-38.