

**SHATYADI CHOORNA IN SHWASA ROGA: A CRITICAL REVIEW****Kaushik Raman<sup>1</sup> Gupta Gaurav<sup>2</sup>**<sup>1,2</sup> Department of PG Studies Kayachikitsa, A & U Tibbia College Hospital, University of Delhi, Karol Bagh, New Delhi, India**ABSTRACT**

Respiratory problems are one of the commonest complains seen in community. Wheezing, cough, shortness of breath is very frequently seen. Difficulty in breathing due to respiratory diseases comes under *Shwasa Roga*. *Shatyadi choorna* is described in *Astanga Hridaya* in the treatment of *Shwasa-Hikka roga*. It is a simple formulation which contains fine powder of six herbs viz. *Shati (Hedychium spicatum)*, *Tamalaki (Phyllanthus fraternus or Phyllanthus niruri)*, *Bharangi (Clerodendrum serratum)*, *Canda (Angelica archangelica)*, *Balaka (Pavonia odorata)* and *Pushkarmoola (Inula racemosa)* in equal parts, mixed with eight times of *Sharkara*. This remedy chiefly has *Kapha-Vata* alleviating and *Vatanulomana* properties. Consideration of the pharmacological properties of contents of *Shatyadi choorna* supports its bronchodilator, eosinophils lowering and mucolytic action. Such properties make this formulation a unique, suitable and effective in *Shwasa roga*, especially in *Tamaka shwasa*.

**Keywords:** *Shatyadi choorna*, *Shwasa roga* and *Tamaka shwasa*.

**INTRODUCTION**

Difficulty in breathing is one of the primary symptoms of respiratory diseases. Chronic respiratory diseases cause approximately 7% of all deaths worldwide and represent 4% of the global burden of disease <sup>1</sup>. Increasing environmental pollution, occupational hazards and stressful lifestyle are chief contributing factors in the accelerating prevalence of respiratory diseases. Allergic diseases like allergic rhinitis and asthma are commonly seen respiratory disorders. Bronchial asthma is characterized frequently with wheezing and difficulty in breathing. In *Ayurveda*, group of pulmonary disorders with labored or difficulty in breathing comes under *shwasa roga*. There are various formulations in Ayurvedic text that are not being

used often, in their respective diseases. Exploration of such formulations may reveal any unique prospect in therapeutics.

Difficulty in breathing due to respiratory disorders is considered under *Shwasa roga* in *Ayurveda*. *Shwasa roga* is said to be a disorder of *pranavaha srotas* <sup>2</sup> (respiratory system). Any pathological changes in *pranavaha srotas* will lead to irregular breathing which may be increased – decreased – slow or deep breathing <sup>3</sup>. *Acharya Charaka* specifies that *Shwasa roga* is manifested by vitiation of *Kapha* and *Vata dosha* and the site of its origin is *Pitta sthana* <sup>4</sup>. Out of five types of *shwasa roga*, *Maha-Urdhva-Chinna shwasa* are incurable or have bad prognosis, *Kshudra shwasa* is not that much perturbing whereas *tamaka shwasa*

is *yapya* (difficult to treat). *Shwasa roga* is difficult to treat, ruins every joy of the affected person and persists for a long time <sup>5</sup>.

## DRUG REVIEW

*Shatyadi choorna* has been described by *acharya Vagbata* in *Astanga hridaya*, *Hikkashwasa chikitsa* chapter and told as the best medicine to treat *Hikka* and *shwasa roga*. This formulation is simple and very convenient to prepare. It contains fine powder of six herbs viz. *Shati*, *Tamalaki*, *Bharangi*, *Canda*, *Balaka* and *Pushkarmoola* in equal parts, mixed with eight times of *Sharkara* <sup>6</sup>. *Shatyadi choorna* has also been mentioned in *charaka samhita* and *yogaratanakar*, with different contents and composition. Rational observation over the pharmacology of herbs used in this formulation supports its efficacy in treating respiratory disorders.

**Shati** : It consists of sliced, dried rhizomes of *Hedychium spicatum* Ham.ex Smith (Family. Zingiberaceae), a perennial rhizomatous herb, measuring up to 1 m occurs in parts of western and central regions of sub-tropical Himalayas at an altitude of 1500-2000 m, grows abundantly in Kumaon and Punjab <sup>7</sup>. Chaturvedi *et al* found that powdered rhizome of *H. spicatum* relieved dyspnea, cough and restlessness in patients of bronchial asthma <sup>8</sup>. In another clinical study conducted on children suffering from tropical pulmonary eosinophilia, *H. spicatum* was found to lower eosinophil count <sup>9</sup>. Bronchodilator, antihistaminic, anti-inflammatory and analgesic activity of *Shati* has also been established by Ghildiyal *et al* <sup>10</sup>

**Tamalaki**: It consists of root, stem and leaf of *Phyllanthus fraternus* Webst. Syn. *Phyllanthus niruri* Hook. f. non Linn. (Fam. Euphorbiaceae). It is an annual herb, 20-60 cm high, found in Central and Southern India extending to Ceylon

<sup>11</sup>. Manjrekar *et al* found that *phyllanthus niruri* has anti-oxidant and hepato-protective activity <sup>12</sup>.

**Bharangi**: It consists of dried roots of *Clerodendrum serratum* (Linn.) Moon (Fam. Verbenaceae); a shrub distributed throughout the country <sup>13</sup>. Singh mukesh *et al* also found its bronchodilator activity along with anti-inflammatory action <sup>14</sup>. Icosahydricpicenic acid (HPA) isolated from the root of this plant, given at the dose of 100 mg/kg showed significant mast cell stabilizing activity as compared to standard sodium chromoglycate <sup>15</sup>.

**Canda**: It consists of dried root of *Angelica archangelica* Linn. (Fam. Apiaceae), a tall perennial herb with thick hollow stem bearing large bipinnate leaves and umbels of greenish-white flowers; found wild in inner valleys of Himalayas viz. Kashmir, Chamba, Kullu, Pangi, Lahaul and Kinnaur at altitudes between 3200 and 4200 m <sup>16</sup>. Izzo AA *et al* found its anti-spasmodic activity against spontaneous contractions of circular smooth muscles <sup>17</sup>. It also has Mild (mild) anti-inflammatory activity <sup>18</sup>.

**Balaka**: It is *Pavonia odorata* Willd which belongs to the family *Malvaceae*. It is commonly known as *sugandhbala*. It is an erect, annual herb distributed in the warmer parts of the world, chiefly in America, parts of Nepal, Bihar, Orissa and Uttar Pradesh <sup>19</sup>. It bears anti-asthmatic and expectorant property <sup>20</sup>.

**Pushkarmoola**: It consists of dried root of *Inula racemosa* Hook. f. (Fam. Asteraceae), a stout herb, 0.5 to 1.5 m high, mostly found in Western Himalayas upto 2600 m <sup>21</sup>. It has well anti allergic activity <sup>22</sup>. Significant inhibition of histamine induced contractions produced by petroleum ether extract of roots of *Inula racemosa* in dose dependent manner (4-10 mg/ml) on isolated goat tracheal chain preparation

leads to inability of smooth muscle to respond to histamine induced spasm leading to inhibition of bronchoconstriction. Further assessment of anti-allergic activity in-vivo by studying the effect of extracts on milk-induced eosinophilia in mice significantly reduced milk-induced eosinophilia in mice as compared control group<sup>23</sup>.

**Sharkara:** Sharkara (sugar) is one of the *Iksu Vikara* and described as superior among other types. Sharkara have a sphere of pharmaceutical properties. It has *Madhura rasa*, *Shita guna*, pacifies vitiated *Vata- Pitta-rakta*<sup>24</sup> and also useful in *Kshata-Kshina* or chronic debilitating disorders<sup>25</sup>. It increases *Kapha* helps in expectoration.

**DISCUSSION:** Line of treatment for *shwasa roga* as per *Acharya Charaka* and *Vagbhata* is *Ushna*, *Kapha – vata shamak* and *Vatanulomaka*<sup>27</sup>. *Maha-Urdhva-Chinna* types of *shwasa roga* are incurable and *Kshudra shwasa* is not that much disturbing. So, it can be inferred that the principle of treatment described in *Ayurvedic* text is chiefly for *Tamaka shwasa*. *Shatyadi choorna* contains herbs like *shati*, *bharangi*, *pushkarmoola*, *canda* having *deepana*, *kapha vishravak*, *shwasahara*, *laghu-tikshna guna*, *ushna virya* and *katu vipaka* properties. So, altogether effect of these drugs made this formulation as a good *shwasa-kasahara* compound. This formulation also has equal parts *Tamalaki* which have a proven hepato-protective action. *Tikta*, *katu rasa* predominant drugs like *Bhumayamalaki*, *Canda* & *Balaka* will likely to perform *agni deepana*, *pachana* of *Ama* and checks formation of *malarupi Kapha* and *Ama*. *Kapha nisaraka* and *chedana* action of drugs like *shati*, *Bharangi*, *Pushkarmoola* may leads to expulsion and alleviation of *Kapha do-*

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*sha* and removal of *pranavaha srotoavrodha*. *Madhura vipaka* drugs like *Bhumayamalaki* and *sharkara* may cause alleviation of *vata dosha* and leads to *sharira bala vridhi*. Analyzing the pharmacological properties of the constituents of *shatyadi (shatyadi) choorna* confers its bronchodilator, eosinophil lowering, anti-histaminic and mucolytic activity. It supports the fact that *shatyadi choorna* is a potent *shwasahara* formulation, especially in clinical condition with wheezing, cough and breathlessness like *Tamaka Shwasa* or *Bronchial asthma*.

#### REFERENCES

1. <http://foundation.thoracic.org/news/the-global-burden-of-lung-disease.php>.
2. Trikamji Yadavji Acharya, Agniveshakrita Charaka Samhita Chakrapani Commentary, Chikitsasthan, Chapter 17, Hikka-Shwasa chikitsa, Verse no. 45, Varanasi, Chaukhambha Surbharti Prakashan, p. 535, Reprint 2011.
3. Trikamji Yadavji Acharya, Agniveshakrita Charaka Samhita Chakrapani Commentary, Vimanaasthan, Chapter 5, Srotovimana, Verse no. 8, Varanasi, Chaukhambha Surbharti Prakashan, p. 533, Reprint 2011.
4. Trikamji Yadavji Acharya, Agniveshakrita Charaka Samhita Chakrapani Commentary, Chikitsasthan, Chapter 17, Hikka-Shwasa chikitsa, Verse no. 8, Varanasi, Chaukhambha Surbharti Prakashan, p. 535, Reprint 2011.

- nasi, Chaukhambha Surbharti Prakashan, p. 533, Reprint 2011.
5. Trikamji Yadavji Acharya, Agnivesha-krita Charaka Samhita Chakrapani Commentary, Chikitsasthan, Chapter 17, Hikka-Shwasa chikitsa, Verse no.9, Varanasi, Chaukhambha Surbharti Prakashan, p. 533, Reprint 2011.
  6. Gupta Kaviraja Atrideva, Vagbhata vi-rachitama Astangahridayam 'vidyotini' commentary, Chikitsasthan, Chapter 4, Shwasa-Hikka chikitsa, Verse no.46, Va-ranasi, Chaukhambha Prakashan, p. 434, Reprint 2009.
  7. The Ayurvedic Pharmacopoeia of India, Government of India, Ministry of health and family welfare, Department of AYUSH, part I, Vol. I, p. 99.
  8. Chaturvedi GN, Sharma BD. Clinical studies on *Hedychium spicatum*: An anti-asthmatic drug. *J Res Indian Med* 1975; 10(2): 6.
  9. Shaw BP. Clinical study of Kapur Ka-chari in the treatment of tropical pulmo-nary eosinophilia. *Nagarjuna* 1980; 23(10):214-216.
  10. Pharmacological evaluation of extracts of *Hedychium spicatum* (Ham-ex-Smith) rhizome, *Anc Sci Life*. 2012 Jan-Mar; 31(3): 117-122.
  11. The Ayurvedic Pharmacopoeia of In-dia, Government of India, Ministry of health and family welfare, Department of AYUSH, part I, Vol. I, p.111.
  12. Effect of *phyllanthus niruri linn*, treatment on liver, kidney and testes in CCl<sub>4</sub> induced hepatotoxic rats, *Indian Journal of Experimental Biology*, Vol.46, July 2008, p. 514-520.
  13. The Ayurvedic Pharmacopoeia of In-dia, Government of India, Ministry of health and family welfare, Department of AYUSH, part I, Vol. III, p.25.
  14. Singh mukesh et al, clerodendrum ser-ratum: Aclinical approach; *journal of ap-plied sciences*; 2012; 2(2); 11-15.
  15. Nal bhujbal, Santosh S et al, Protede-tive effects of Icosahydropicenic acid iso-lated from the roots of *Clerodendrum ser-ratum* (L.) moon on experimental allergic asthma; *journal of complementary and in-tegrative medicine*, 2010 ; (7).
  16. The Ayurvedic Pharmacopoeia of In-dia, Government of India, Ministry of health and family welfare, Department of AYUSH, part I, Vol. V, p.16.
  17. Izzo AA et al. Spasmolytic activity of medicinal plants used for the treatment of disorders involving smooth muscles. *Phy-tother Res* 1996; 10: S107-S108.
  18. Elinska-Jencylik j et al. Effect of plant extracts on the in vitro interferon synthesis. *Arch Immunol Ther Exp* 1984; 32: 577.]
  19. Anonymous, "The Wealth of India-Raw Materials", C.S.I.R Publication, New Delhi, India, 1966, Vol VII, 283.
  20. [http://herbpathy.com/Uses-and-Bene-fits-of-Pavonia-Cid4310](http://herbpathy.com/Uses-and-Benefits-of-Pavonia-Cid4310).
  21. The Ayurvedic Pharmacopoeia of In-dia, Government of India, Ministry of health and family welfare, Department of AYUSH, part I, Vol. IV, p.102.
  22. Srivastave et al, Evaluation of antial-lergic activity (type *i* hypersensitivity) of inula racemosa in rats, *Indian J Physiol Pharmacol* 1999; 43 (2) : 235-241.
  23. Gautam P.Vadnere, Ram S.Gaud, Ab-hay Kumar Singhai, R.S.Somani, Effect of inula racemosa root extract on various as-pects of asthma, *Pharmacologyonline* 2: 84-94 (2009).
  24. Bhavaprakasa Nighantu of Sri Bhava-misra, commentary by Prof. K.C Chune-ka, *Ikshuvarga*, verse no.30, Varanasi, Chaukhamba Bharti Academy, p.780, Re-vised and enlarged edition 2010

25. Dhanvantari Nighantu, edited by Prof. P.V. Sharma, translated by Dr. Guru Prasad Sharma, chapter 2, verse 102, Varanasi, Chaukhamba Orientalia, , p.89, Fourth edition 2005.

26. Trikamji Yadavji Acharya, Agnive-shakrita Charaka Samhita Chakrapani Commentary, Chikitsasthan, Chapter 17, Hikka-Shwasa chikitsa, Verse no. 147, Va-

ranasi, Chaukhamba Surbharti Prakashan, p. 539, Reprint 2011.

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