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Review Article

THAMAKA SHWASA (BRONCHIAL ASTHMA) – A CONCEPTUAL REVIEW

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Abstract

Respiration is a vital physiological process for sustaining life. The first comprehensive explanation on breathing mechanism explained in Ayurvedic context was by Acharya Sharangadhara. Pranavaha srotas deals with respiratory system and its functions like respiration. Prana indicates one among five types of vata dosha which is located in murdha or head and travels in uras (chest, regions of heart, lungs) and khanta (throat). According to Acharya Charaka, hridaya and mahasrotas are root of pranavaha srotas and its dushti lakshanas proves similar to respiratory diseases. Tamaka Shwasa is one type of shwasa and can get worsened to cause death, so the need to treat Tamaka Shwasa before it becomes yapya is to be considered. Hence it is necessary to revalidate the ancient knowledge about Tamaka Shwasa etiology, pathophysiology, signs, symptoms, prognosis, line of treatment and the wide information's from ayurvedic classics into potent, effective, scientifically validated and evidence-based medicine is the need of the hour.

Keywords: Ayurveda; Tamaka Shwasa; Srotas.

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INTRODUCTION

The word Tamaka is derived from the dhatu "tamo glanou' which means sadness according to Panini. According to vachastpathya the word Shwasa is derived from root word 'shwas'dhatu. The disease is called Tamaka as it appears especially on durdina and tama i.e, darkness. Tamaka Shwasa is explained by Brihattrayes, Madhavanidana, Yogarathnakara and Bhavapraksha. Bronchial asthma with which Tamaka Shwasa have been compared is a heterogeneous disease, usually characterized by chronic airway inflammation. The rapid rise in prevalence implies that environmental factors are critically important in the development and expression of the disease. Shwasa roga is classified into five types, Maha shwasa (dyspnoea), Urdhwa Shwasa (expiratory dyspnoea), Chinna Shwasa (chynestroke respiration), Kshudra Shwasa (dyspnoea minor), Tamaka Shwasa (bronchial asthma).[1] Tamaka Shwasa a pranavaha srotho roga described in Ayurvedic text books resembles bronchial asthma in its etiology and clinical manifestations. Both nija (internal) and agantuja (external) factors palys a role in etiology of Tamaka Shwasa. Tamaka Shwasa is yapya (palliative) but sadhya (curable) at its primary stage.[2] The disease is called Tamaka as it appears especially on durdina and tama i.e, darkness. Etiology of Tamaka Shwasa includes aharaja (due to diet), viharaja (due to regimens), vyadhinimita (due to diseases) and agantuja (due to external factors).[3] Acharya Charaka and Vaghbata has mentioned Tamaka Shwasa is Kapha-vataja vikara and site of its origin is pitta sthana and mentioned its two stages pratamaka shwasa and santamaka shwasa. Acharya Vaghbhata has mentioned uras as adhisthana of vyadhi and amashaya to be the origin, according to Susruta Samhita, Madhvanidana and Yogarathnakara Tamak Shwasa is a kapha predominant diseases.[4] Involvement of pitta sthana explains the role of agni and ama. While describing the management Acharya Charaka has clearly mentioned the importance of Nidana parivarjana along with Shodhana and Shamana chikitsa with special importance to vatahara, brmhana and shamana chikitsa.

AIMS AND OBJECTIVES

Categorize and describe concepts relevant to Tamaka Shwasa from Ayurvedic textbooks.

Identify the common guidelines and to highlight the differences and key-points from the existing references on Tamaka Shwasa.

Access the effect, and differences in Ayurvedic line of treatment of Tamaka Shwasa using shamana chikitsa (herbal and herbo-mineral drugs) and shodhana chikitsa (panchakarma procedures) according to available treatment guidelines.

MATERIALS AND METHODS

The review is done based on available classical Ayurvedic literature on Tamaka Shwasa, modern literature on bronchial asthma, research journals, based on logical interpretations to review and compile the information's on Tamaka Shwasa etiology, pathophysiology, signs, symptoms, prognosis, line of treatment and the wide information's into potent, effective, scientifically validated and evidence-based medicine.

Epidemiology

The references on prevalence of Tamka shwasa are unavailable. Tamaka shwasa can be correlated with bronchial asthma. Prevalence of bronchial asthma increased steadily over later parts of last century. The rapid rise in prevalence implies that environmental factors are critically important in the development and expression of the disease. As bronchial asthma affects all age groups, it is one of the most common and chronic inflammatory respiratory conditions affecting 1-18% of the population in different countries, prevalence is more in developed countries than in developing

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countries. The ratio affected with bronchial asthma is usually equal in adult male and female. The disease initiates before the age of 10 years in majority but can start at any age.[5]

Site of origin

Acharya Charaka -Pitta sthana samudhbhava
Acharya Vaghbata - Amashaya as site of orgin

Types

When the patient of Tamaka Shwasa gets jwara and murcha due to upward movement of vata in abdomen, humidity, suppression of urges, indigestion, exposure to dust and smoke produces another stage of Tamaka Shwasa called pratamaka shwasa if such a patient feels as if he is submerged in darkness it is known as santamaka shwasa (nocturnal asthma) Acharya Charaka has mentioned both pratamaka and santamaka as types of shwasa.

Acharya Susruta and Vagbhata has considered only pratamaka Shawsa According to Acharaya Susruta pratamaka shwasa subsides when kapha decreases and increases greatly when lieying and accompanied with murcha and jwara. Acharya Vaghbhata considered jawra and murcha as tamaka swasa lakshana and relived by shitopachara. While considering treatment of Shwasa acharya Charaka has considered two types of shwasa rogi namely balavan / kaphaadhika rogi and durbala / vataadhika rogi. Patient of shwasa who has good body strength and can be subjected to shodhana chikitsa are considered balavan. Those with poor body strength, can't withstand strong treatment like shodhana are considered durbala. Vata atikhata is mentioned as an indicator of predominantly aggravated vata dosha and rukshata (unctuous) mainly in bala and vridha (children and old age). The causative factors are elaborated in Table 1.[6] and the samprapti is explained as flow chart 1.[7]

Flow chart 1: Samprapti

Nidana sevana
⇓
Agnimandhya and dosha dushti (vata and kapha)
⇓
Amarasa formation in pitta sthana or adho amashaya
⇓
Malarupa kahapa prasarana
⇓
Pranavaha srotogamana of kapha
⇓
Kapha avrana to pranavyau
⇓
Prana vayu prakopa, tries to overtake avrana
⇓
Vimargagamana of vata
⇓
Vaykta lakshan of Shwasa

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Table 1: Nidana (causative factors)

Aharja (Diet)	Viharaja (Regimens)	Nidanarthakara Vyadhi (Diseases)	Agantuja (External Factors)
Cold drink	Cold wind	Atisara (Diarrhoea)	Marmaghata (Injury to vital organs)
Cold foods	Smoke	Jwara (Fever)	Visha(Poisoning)
Heavy to digest	Dust	Chardi (Vomiting)	Kantaprathighata (Injury to throat)
Abhishyandhi (Block channels)	Exercise	Pratishyaya (Rhinitis)	Urahparthighata (Injury to chest)
Ruksha (dry)	Suppressing urges	Kshatakshaya (Emaciation)	
Vidahi (produce burning sensation)	Residing in cold places	Raktapitta (bleeding disorder)	
Adhyashana (eating before digestion of previously eaten food)	Carrying heavy loads	Udhavartha (Reverse movement of vata)	
Kapaha aggravating food	Exposure to sun	Visuchika (Gastroenteritis)	
Jalaja mamsa (meat of aquatic animals)	Fighting with stronger individuals	Alasaka (Meteorism)	
Anupa mamsa (Meat of animals living in marshy land)	Walking longer distance	Pandu (Anemia)	
Ama kshira (unboiled milk)		Kaasa (Cough)	
Curd			
Black gram			
Lotus root			
Flat beans			
Taking incompatible food			
Residue of oil seeds			
Uncooked food			
Sesame oil			

Samprapti ghataka[8]

- Dosha- vata, kapha
- Kapha- avalambaka and kledaka
- Vata- parana, udana and samana
- Dushya- rasadhatu
- Srotas- praanavaha, udhakavaha and annavaha
- Udhbavasthana- pittasthana
- Adhishtana- uras
- Sroto dushti lakshana- sanga, vimargagamana, athipravrthi
- Ama- manda agni janya ama
- Agni- vishama agni
- Vyadhi- amashyaotha
- Swabhava- ashukari
- Roga marga- abhyantara marga

Prodromal symptoms

- Hritpida (chest tightness)
- Parshva shoola (pain in flanks)
- Anaha (constipation)
- Shankha beda (pain in sides of forehead)
- Adhmana (flatulence)
- Bhakta dwesa (dislike for food)
- Arathi (restlessness)
- Vadana viswarya (bad taste in mouth)
- Aruchi (tastelessness)

Signs and symptoms

- Peenasa (rhinitis)
- Gurghuraka (wheezing)
- Tivra vega Shwasa (dyspnoea)

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- Shwasa pranapetaka (dyspnoea which is injurious to life)
- Kasa (cough)
- Sannirudha (motionless)
- Pratamya (tremor)
- Muhur moha (repeated fainting)
- Muhur Shwasa (repeated dyspnoea)
- Dukhita/arathi (restless)
- Krcharabashita (difficulty to speak)
- Ushna abhinadhana (desire for hot things)
- Patient does not get sleep on lying down due to shwasa because the sides of uras (chest) in that position gets affected by vata
- Patient feels relived on siting posture
- Forehead sweating
- Dry mouth
- Frequent dyspnoea
- Shwasa aggravated on cloudy days, exposure to humidity, cold, wind and on consuming kapha aggravating foods and following kapha aggravating regimens.

Prognosis

- Acharya Charaka – curable in early stage and palliable in later stage
- Acharya Susruta- curable with effort and in debilitated patient's incurable
- Acharya Vagbhata- palliable but curable in early stages in strong patients

Bronchial Asthma

A heterogeneous disease, characterized by chronic airway inflammation. It is defined by the history of respiratory symptoms such as wheeze, shortness of breath, chest tightness and cough, that vary over time and intensity, together with variable expiratory airflow limitation often worse at night or in the early morning and triggered by viral infections, exercise, allergen exposure, changes in weather, physical exercise or irritants such as car exhaust fumes, smoke or strong smell. Inhalation of allergens into airway stimulates broncho-constrictor responses. Bronchial asthma is a chronic condition but in majority of patients symptoms and airflow limitation may resolve spontaneously or in response to medication and may sometimes be absent for weeks or months at a time. On the other hand, patient can experience episodic flare -ups (exacerbation) of asthma that may be life threatening. Chronic airway inflammation usually persists even when symptoms are absent or lung function is normal, but may normalize with treatment. Unfortunately surveys consistently demonstrate that majority of patients with asthma reports suboptimal.[9] Long term treatment with oral corticosteroids can result in serious systemic adverse effects such as suppressed adrenal function, cataract, suppress bone health recurrence of viral infections, oral and inhaled corticosteroids cause thinning of dermis and increased bruising/purpura, hyperglycaemia.

Management of tamaka shwasa - Abhyanga and swedana

The patient afflicted by asthma should be treated by physician initially with unctuous fomentation therapies like Nadi - Sveda, Prastara- Sveda and Sankara - Sveda after anointing the chest with lavana taila. Lavana taila helps in kapha vilayana and chedana (dissolves and disintegrates kapha dosha) Snehana will help in provoking the doshas (kapha and pitta) which are adhered in channels and produces vata anulomana (downward movement of vata) Swedana karma liqufies the doshas and brings doshas into koshta. Doshas can be eliminated from koshta by appropriate shodhana -vamana or virechana

Shodhana

According to Acharya Charaka shodhana chikitsa for shawasa are Vamana and Virechana. Snehana and swedana should be done as poorvakarma for shodhana.

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Vamana

Vamana can be done if patient with shwasa develops kasa and swarabedha, in balavan and in kapha predominant cases. Sadyao vamana with decoction of yashtimadhu *(Glycyrrhiza glabra)* is indicated in vegakalina avastha (during asthma attack). Vamana Vega is induced by giving stomach full of snighda bhojana (milk / sugarcane juice / gruel / meat soup) followed by administration of vamana aushadha (vata kapaha hara) Pippali (*Piper longum*), Saindhava (rock salt) and Kshaudra (Honey).

Virechana

Virechana is indicated in tamka shwasa, in balavan and kapha predominant cases vi Snehana and swedana is done followed by administration of virechana dravya. Nitya virechana can be done with anulomana dravya administrated in mild dose.[10]

Benefits of shodhana

Once kapha dosha get eliminated by proper shodhana procedures the person will get relived from Tamaka Shwasa symptoms, shortness of breath gets relived, person starts breathing easily once the srotorodha (blocked channels of circulation) is removed, free and unobstructed movement of vata helps in normal breathing

Dhoomapana

Dhoomapana is indiacted in balavan and kapha predominant cases, small quantity of kapha adhered in channels even after vamana can get aggravated by triggers so medicated smoking is done to remove hidden doshas from channels using dhooma vartis like Haridradi dhooma, Yava dhumavarti, Madhuchistadi varti, Sringadi dhumavarti, Shyonakadi varti, Padhmakashtadi varti.

Shamana chikitsa

In Durbala (weak body strength) and vata predominant condition vatahara aushadha, tarpana (brmhana) in the form of Sneha, yusha, mamsa rasa are indicated. Shodhana can't be done in this case if done vata gets lodged in marma and causes death of patient. Nidana parivarjana avoid all etiological factors that lead to development of hikka (hiccup) and shwasa. Shamna yogas that which pacify kapha and vata doshas, ushna (hot), and vataanulomana (downward movement of vata dosha) brahmana (nourishing). Ayurvedic formulations having tikta and katu rasa, easy to digest, penetrating, hot potency and that which pacifies vata and kapha dosha prevents blockage inside srotas, anti-inflammatory, immunomodulator and which boost agni has been mentioned in the form of various shamana aushada.[11] (Table 2) (Table 3)

Role of Pranayama and Yoga

Pranayama can reduce the frequency as well as severity of symptoms and enhance lung function. Meditation helps in reducing the stress and recurrence of Shawasa. Bhastrika balances Vata, Pitta, and Kapha from body and increases agni. It removes Malayukta Kapha from the lungs easily. Pumping movement of the lungs will increase lung capacity; thus, correction of the entire respiratory system easily cures bronchial asthma.[12] Nadi Shodhana purifies the subtle energy channels (Nadi) of the body, Prana flows more easily during Pranayama, clears the respiratory passage, and strengthens the lungs. Ujjayi is most effective for correcting and strengthening the condition of the lungs as well as bronchiole linings.

Yoga asanas like Tadasana, Urdhva hastottanasana, Ardha Chakrasana, Katichakrasana, Bhujangasana, Ushtrasana improves air exchange in lungs, lung capacity, respiration, increases thoracic mobility and

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helps chest expansion and balances the spine which can aid in proper breathing.[13]

Congestion of Kapha is removed by stretching of the entire body brings a good effect upon the whole of respiratory system activating the facial tissues, the nasal passage, the pharynx, the lungs, and the whole of respiratory organs and the nerves. Expansion leads to increase ventilation of the alveoli.

Rasayana Chikista

The strength of Pranavaha Strotas is improved by rasayana chikitsa. Rasayana having action on pranavaha srotas can be utilized in Thamaka Shwasa.

Chyavanprashsa - It alleviates cough, asthma, and bronchospasm of seasonal and non-seasonal origin, smooth functioning of the tracheobronchial tree, maintain the adequate hydration of respiratory system, increasing the strength of respiratory system.

Vardhaman Pippali-Gives strength to the Pranavahasrotas. Used in Vataja shwasa, chronic cough and bronchitis.

Chausashta Prahari Pippali - Improves lung health. It helps in detoxifying lung.

Agasthya Harithaki Rasayana - Harithaki is one of the main ingredients which is Ruksha, Laghu, Kashaya Pradhana Pancha Rasa (except lavana), Madhura Vipaka, Ushna Veerya, Rasayani and Vata- Kaphahara.[14]

PATHYAPATHYA - Pathya Ahara

Laghu (light) and Ushna (warm) diet, Shali dhanya (variety of rice) purana (old) shali, tandula (dehusked seeds)**,** Vrihi dhanya (rice) like shashtika *(Oryza sativa),* yava (*Hordeum vulgare).* Shooka dhanya (monocotyledons) like godhuma (*Triticum aestivum).* Shimbi dhanya (pulses) like mudga *(Vigna radiata*), kulataha (*Macrotyloma uniflorum),* Shaka (vegetables) like patola *(Trichosanthes dioica),* vartaka (*Solanum melongena*), rasona(*Allium sativum*), bimbi *(Coccinia indica),* moolaka (*Raphanus sativus*), shigru (*Moringa oleifera*), Mamsa varga (group of meat) like jangala (animals living in dry land), shasha (rabbit), lava (common quail). Phala varga (fruits) like jambira (*Citrus limon),* draksha *(Vitis vinifera),* mathulunga (*Punica granatum),* amalaka *(Phyllanthus emblica*), bilwa *(Aegle marmelos).* Madhya varga- sura, Varuni. Madhu varga- madhu (honey). Mootra varga- gomutra (cow urine). Dugdha varga- aja kshira (goat milk) Ghrta varga - purana sarpi (old ghee), aja sarpi (ghee from goat milk). Kritana varga (processed foods) mudga yusha, matulungadi yusha, dashamooladi yavagu, peya (thin gruel), saktu (powder of roasted and dehusked barley).

Pathya Vihara

Swedana (sudation), hot water bath, atapa sevana (exposure to early sun), lavana taila abhyanga (body massage), pranayama, wearing warm clothes in winter season.

Apathya Aahara

Over eating and taking milk at bed time, fried, too cold, sour, heavy preparations. Sour food mustard, Amla Phala (*Citrus fruits*), Sheeta paneeya (cool drinks)], curd, unboiled milk, dushtambhu (dirty water), matsya (fish), kanta (rhizomes), guru (heavy), ruksha (dryness) and shita (cold) food and drinks**.** Shimbi dhanya (pulses) like nishpava (*Dolichos lablab),* masha (*Teramnus labialis),* thila (*Sesamum indicum),* sarshapa (*Brassica campestris Linn).* Shaka varga (leafy vegetables)**,** Mamsa varga (group of meat) of animals living in Jalaja (aquatic), anupa (marshy land), matsya (fish)**,** Kshira varga (group of milk) like mahaisha kshira (buffalo milk**)** Ghrita varaga (group of ghee) like mahisha ghrita (buffalo's ghee), Krita anna varga (processed foods) like beans fried in sesame oil, pinyaka (oil cake)

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Table 2: Shamana yogas

Avaleha	Asava Arishta	Vati
Guda avaleha		
Vardhamana pippali		
Kantakari avaleha		
Bharngi sharkera		vyoshadigutika Vijaya vati
Bharngi guda		Shwasa kutara rasa
Kulatha guda		Damareshwabra rasa
Haridradi lehya	Patadi asava	Shwasa Chintamani
Bharngyadi lehya	Kanakasava	Shwasakasa Chintamani
Kshudra avaleha		Shwasa bhairava rasa
Bharngi Haritaki avaleha		Maha shwasa kutara rasa
Chitraka Haritaki avaleha		Mruganka vati
Draksha Haritakyadi avaleha		
Chyavanaprasha		
Agasthya haridaki		

Table 3: Shamana yogas

Churna	Kalka	Swarasa	Kwatha
Sauvarchaladi	Bharangi	Ardraka swarasa	Kulathadi
Shatyadi	Pushkaradi	Kantakari putapaka	Dasamuladi
Amlaki churna		Vibhitaki putapaka	Vasadi
Kaalaloha churna			Nidigdikaadi
Triphala-pipali			Shatyadi
Katphaladi			
Shuntyadi			
Taalisadi			
Sitopaladi			
Krishandi			
Haridradi			
Shringyadi			
Muktadya			
Drakshaadi			
Markatibija			
Gudadi churna			

Apathya Vihara

Exposure to dust smoke wind cold, strenuous exercise, smoke, pets, pollen, fasting for a longer period, exposure to smoke and congested places for a longer period, taking bath in cold water, carring heavy load**,** denourishment**,** Rakta srava (bloodletting), Marmaghata (injury to vital organs), Vegavarodha (suppression of natural urges) are to be avoided

DISCUSION

Shodhana can be considered according to dosha avastha and strength of patient. Shawasa originate from pitta sthana, virechana is the best treatment option for pacifying pitta and diseases due to vitiated pitta. Ayurvedic formulations having tikta and katu rasa, easy to digest, penetrating, hot potency and that which pacifies vata and kapha dosha prevents blockage inside srotas, anti-inflammatory, immunomodulator and which boost agni has been mentioned in the form of various shamana aushada, dhoomapana, rasayana. When the

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CONCLUSION

Tamaka Shwasa has been described in Ayurveda on basis of etiology, clinical features, pathophysiology, prognosis and specific treatment lines. Tamaka Shwasa is a disease of pranavaha srotas which clinically mimics bronchial asthma. The site of origin of the disease is pitta sthana which implies that agni and ama plays an important role in pathophysiology of the disease. Tamaka Shwasa can be cured at its early stages with appropriate treatment. Ayurvedic formulations in the form of churna, kalka, asava, arishta, kashaya, lehya, tila, ghrita and shodhana chikitsa can be utilized for managing Tamaka Shwasa considering prakrithi, rogibala, state of agni.

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