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THE IMPACT OF SOME INDIAN MEDICINAL PLANTS IN THE MANAGEMENT OF SHVASA ROGA (DYSPNOEA)

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ABSTRACT

There are many fatal diseases described in Ayurveda but none of them is as deadly as shvasa (Dyspnoea) which kills the patient instantaneously. It is said to be present definitely at the time of birth as well as death. Almost every person suffers with this disease at some time in their life. It is the disease of pranavaha srotasa (respiratory channels) which occurs due to obstruction caused by vata and kapha. In Ayurveda, this disease is diagnosed and managed according to the systematic symptoms described. Treatment with Ayurvedic drugs cure the disease and potentiate the body's immune system. There are various Indian medicinal plants used for prevention and treatment of this disease. Some of them act by drying up the excess kapha (mucous) secretions (due to their ushna veerya i.e. hot potency) present in the respiratory channels while others act by their bronchodilator and expectorant action. This article reviews the references and usefulness of such type of plants mentioned especially in Indian system of medicine.

KEYWORDS: Shvasa, Dyspnoea, Ayurveda, Shati, Pippali, Shunthi.

INTRODUCTION

The shvasa roga (dyspnoea) refers to the disease in which movement of vayu (air) becomes urdhwa (upward). Charaka has said that this disease originates from the pittasthana (stomach).[1] It originates due to consumption of etiological factors which result in the aggravation of pranavayu and this aggravated pranavayu combines with kapha and leaves its natural path and then moves in the upward direction leading to more of respirations known as shvasa roga.[2]

Nidana (Etiology)

Exposure to dust, smoke, fire and wind, residing in cold place, excessive use of cold water, physical exertion, sexual intercourse, long walk beyond one's capacity, habitual intake of unctuous food, irregular meals, intake of curd, non-boiled milk, consumption of abhishyandi dravya (channel blocking substances), intake of meat of aquatic and marshy animals etc. are the etiological factors responsible for shvasa roga.[3] The food which induces shvasa roga may be vataprakopaka like rukshanna (dry food), vishamashana (eating irregularly), adhyashana (eating again before the digestion of previous food), anashana (no consumption of food), shitashana (consumption of cold food), visha (toxic material), shitapana (intake of cold drink), pittaprakopaka like tila taila (sesamum oil), vidahi (which causes burning with hyperacidity and poor digestion), katu (pungent), ushna (hot in potency), amla (sour), lavana (salty), kaphaprakopaka like nishpava (*Dolichos lablab*), masha (*Vigna mungo*), pishtanna (products made from rice), shaluka (root of lotus), guru dravyas (Substances producing heaviness in the body after the digestion), jalajamamsa (meat of aquatic animals), dadhi (curd), utkledli (aggravating pitta and kapha doshas), vistambhi (flatulent). The vihara (activities) which induces shvasa roga may be vataprakopaka like rajas (dust), dhuma (smoke), vata (cold air), shitasthana (cold place)**,** shitambu (cold water), ativyayama (excessive exercise), gramya dharma (sexual intercourse), kantha or uraha pratighata (trauma to neck or thorax), veganirodha (holding of natural urges)**,** pittaprakopaka like ushna vihara (activities increasing hotness in body) and kaphaprakopaka like abhishyandi upachara (intake of channel blocking substances), divasvapna (day time sleeping)**.** The diseases which are responsible for origin of shvasa roga (i.e. nidanarthakara roga) includes vataja disorders like anaha (hardness of bowels), daurbalya (weakness), atisara (diarrhea), kshaya (consumption), udavarta (upward movement of air inside bowels), visuchika (cholera), panduroga (anaemia),

visha sevana (ingestion of toxic materials), vibandha (constipation), pittaja disorders like raktapitta (bleeding tendency), jvara (fever) and kaphaja disorders like kasa (cough), amapradosha, chhardi (vomiting), pratishyaya (rhinitis), amatisara (diarrhoea with mucus) etc.[4,5]

Samprapti ghataka (Components of aetiopathogenesis)

The main doshas involved in its aetiopathogenesis are kapha and vata. This vitiated kapha and vata dosa obstruct and constrict the pranavahasrotasa (respiratory channels) i.e. sthanasansraya (accumulation of dosha and dushya) occurs in pranavaha srotasa. Vata dosa tries to expel out this cough then it (vata) produces shvasa too. The dushya mainly involved is rasadhatu which affects uttarottar dhatus. The srotas involved in its aetiopathogenesis are pranavaha, annavaha and udakavaha. The srotodusti occurring in its aetiopathogenesis is of two type sanga (immobility) and vimargagaman (deviation from right path). The main agni involved in its aetiopathogenesis are jatharagni (digestive fire) and rasadhatwagni. In shvasa roga, jatharagni and rasadhatwagni are diminished. The symptoms observed in shvasa, like ajirna (constipation), udavarta, adhmana are due to jatharagnimandya and production of excessive sticky cough is due to rasadhatwagnimandya.

Purvarupa (Premonitory signs and symptoms)

It includes pain in chest, aversion towards food, restlessness, flatulence, pain in flank, bad taste in mouth and reversion of respiratory functions.[6]

Bheda (Types) and Rupa (Symptoms)

Ayurveda describes five types of shvasa namely mahashvasa, urdhvashvasa, chhinnashvasa, tamakashvasa and kshudrashvasa.[7] The mahashvasa is characterized by deep breath associated with discomfort and sound like that of mad or intoxicated bull due to obstruction in pranavaha srotas. There is rolling and distorted eye is seen, retention of urine and stool occurs, voice becomes feeble. The respiratory sound becomes audible even from a distance. It is the most serious type among all shvasa. This condition occurs shortly before death. The urdhvashvasa is associated with prolonged expiration and an inability to have inspiration. It is characterized by forceful expiration and impeded inspiration due to which the patient becomes unconscious with tremors and finally dies. The chhinnashvasa is characterized by interrupted respiration or no respiration at all, cutting pain in vital organs, burning sensation in urinary bladder, tearing eyes etc. When this shvasa occurs the eyes gaze downward and one eye often appears red. The tamakashvasa is characterized by rhinitis, wheezing sound,

greater enhancement of respiration in relation to rate and rhythm, feeling of darkness in front of eyes, thirst, vomiting etc. The paroxysmal attack of this disease leads to great distress. This condition aggravates during cloudy days, by use of cold water and kapha increasing foods. It is correlated with bronchial asthma. The kshudra shvasa occurs after exercise and heavy eating. It subsides when person takes rest. It does not produce any discomfort and is curable.[8,9]

MANAGEMENT OF SHVASA ROGA

Shvasa like mahashvasa, urdhvashvasa and chhinnashvasa are fatal due to their quick onset nature therefore they should not be treated. On the other hand, the curable and palliable varieties of shvasa should be treated with due care by medicines as early as possible. Delay in treatment proves to be fatal. Kshudra shvasa is mild and is sadhya (easily curable). Tamakashvasa is krichhrasadhya (difficult to cure) or it is curable when it is having less duration of onset, chronic is yapya (disease is under control till the employment of drug) and also it is asadhya (non-curable) in the weak patients.

IMPACT OF INDIAN MEDICINAL PLANTS

Substances which cause alleviation of vata and kapha, which are hot in potency and which cause downward movement of vata are useful as medicines, drinks and food preparations for the patients suffering from shvasa roga. So the herbal drugs having properties of pacifying kapha and vata are used in the treatment of shvasa because these two are main dosha involved in its aetiopathogenesis. Some of these useful medicinal plants are.

SHATI (Spiked ginger lily)

Its botanical name is *Hedychium spicatum* and it belongs to the family zingiberaceae. It has synonyms like shathi, gandhamulika, palashi etc. It is a erect, glabrous, perennial rhizomatous herb, measuring upto 1-1.5 meter height and occurs in parts of western and central regions of sub-tropical Himalayas.[10] Its rasa (taste) is katu (pungent), tikta (bitter) and kashaya (astringent). It is laghu (light), tikshna (sharp) in guna (property). It has ushna virya (hot in potency) and katu vipaka (finally transformed into pungent taste after digestion).[11] Its karma (actions) are kaphavatashamana (pacification of kapha and vata), grahi (help in containing), shothagna (anti-oedematous), kasaghna (anti-cough), shvasaghna, vranaropana (wound healing), dipana (stomachic), vatanulomana (carmination), shoolahara (analgesic).[12] The powder of shati, pushkarmula (*Inula racemosa*) and amalaka (*Emblica officinalis*) are combined and taken with honey in shvasa.[13] The shatyadi churna (mixture of

powder of shati, choraka (*Angelica glauca*), jivanti (*Leptadenia reticulata*), dalchini (*Cinnamomum zeylanicum*), nagarmotha (*Cyperus scariosus*), pushkarmula, leaf of tulsi (*Ocimum sanctum*), tamlaki (*Phyllanthus urinaria)*, ela (*Elettaria cardamomum*), pippali (*Piper longum*), aguru (*Aquilaria agallocha*), shunthi (*Zingiber officinale*), sugandhbala (*Pavonia odorata*) and eight times sugar) is very useful in shvasa.[14]

PUSHKARMULA

Its botanical name is *Inula racemosa* and it belongs to the family compositae. It has synonyms like padmapatra, kaashmeera, kusthabheda etc. It is a erect, stout, perennial herb, measuring upto 1.5 meter height and occurs in parts of western Himalayas including Jammu, Kashmir and Himachal Pradesh.[15] Its rasa is tikta and katu. It is laghu, tikshna in guna. It has ushna virya and katu vipaka.[16] Its karma (actions) are kaphavatashamana, shothagna, shvasaghna, vranaropana, dipana, anulomana (purgation), shoolahara etc.[17] Its powder with honey alleviates dyspnoea, cough and hiccough.[18] The powder of pushkarmula, shati and amalaka are combined and taken with honey in shvasa.[19] It has been said the best drug for dyspnoea, cough, hiccough and parshvashoola (pleuritic pain) by Charaka.[20]

ELA

Its botanical name is *Elettaria cardamomum* and it belongs to the family zingiberaceae. It has synonyms like truti, triputa, sukshmaila etc. It is a perennial rhizomatous erect herb, measuring upto 1.5-3 meter height and found mostly under cultivation along the western ghats including Kerala, Karnataka and Tamilnadu states.[21] Its rasa is katu and madhura (sweet). It is laghu, ruksha in guna. It has sheeta virya (cold in potency) and madhur vipaka.[22] Its actions are tridosahara, rochana (appetizer), vatanulomana, mutrala (diuretic), kashaghna, shvasaghna, kaphanissaraka (expectorant), dipana etc.[23] It is used in different formulations (like muktadi powder, shatyadi powder etc) useful for shvasa.[24] It has been kept under one of the ten shvasahara mahakashaya drugs by Charaka.[25]

HINGU (Asfoetida)

Its botanical name is *Ferula jaeschkeana* and it belongs to the family umbelliferae. It is also known by the synonyms like ramatha and sahasravedhi. It is a perennial, erect, aromatic herb with 2-3 m height, occurring in Kashmir and North Western Himalayan region.[26] Its rasa is katu. It is laghu, snigdha and tikshna in guna. It has ushna virya and katu vipaka.[27] Its karma are vatanulomana, shvasaghna, dipana, shulahara, hridya (heart tonic), krimighna (wormicidal), pachana (digestant), vatakaphaprashamana etc.[28] It has also been kept under

one of the ten shvasahara mahakashaya drugs by Charaka.[29] It is used in different formulations like hinguadi yavagu, dashmuladi ghrita, tejovatyadi ghrita and higuadi powder (taken with lemon) useful for shvasa.[30]

AGURU (Indian Eagle wood)

Its botanical name is *Aquilaria agallocha* and it belongs to the family thymelaceae. It is also known by the synonyms like lauha, krimija, krimijagdha etc. It is a large evergreen tree, measuring upto 20-35 m height, found growing in the hilly forests of Assam, Meghalaya, Nagaland, Manipur and Tripura.[31] Its rasa is katu and tikta. It is laghu, ruksha and tikshna in guna. It has ushna virya and katu vipaka.[32] Its actions are shvashara, vatakaphahara, shothhara, vednasthapana (analgesic), rasayana (rejuvenative) etc.[33] Its incense provides relief in shvasa roga.[34] It is used in different formulations (such as shatyadi powder) and dhoompana (medicated smoking) process (to remove the hidden doshas left after vomiting in shvasa roga).[35,36]

PIPPALI (Indian long pepper, Long pepper)

Its botanical name is *Piper longum* Linn and it belongs to family piperaceae. It has synonyms like magadhi, krishna, kana, chapala, ushana, upakulya, shaundi, vaidehi, tikshnatandula etc. It is a perennial, trailing, aromatic herb-under shrub with ascending branching and is found in hotter Central Himalayas, Assam, Meghalayas, West Bengal and in South Indian states.[37] Its rasa is katu. It is laghu, snigdha (unctuous) and tikshna in guna. It has anushnasheeta (slightly hot) virya and madhura vipaka.[38] Its actions are kaphavatashamana, vrishya (aphrosidiac), rasayana, shvashara, kasahara, jwaranashana (antipyretic) etc.[39] It should be taken with shunthi and rock salt with honey in the morning if the shvasa roga is curable.[40] The powder of pippali, draksha (*Vitis vinifera*), harada (*Terminalia chebula*), karkatshringi (*Pistacia integerrima*) and duralabha (*Fagonia cretica*) mixed and taken with ghrita (butter oil) and honey to cure dangerous shvasa roga.[41]

SHUNTHI (Dry Ginger)

Its botanical name is *Zingiber officinale* and it belongs to family zingiberaceae. It has synonyms like nagara, mahaausadha, katubhadra, vishwabheshaja etc. It is an erect herb with several leafy shoots and tuberous rhizomes. It is cultivated throughout India, more so in Kerala, Karnataka, Andhra Pradesh, Gujrat, Madhya Pradesh, West Bengal, Orrisa and Himachal Pradesh.[42] Its rasa is katu. It is laghu and snigdha in guna. It has ushna virya and madhur vipaka.[43] Its actions are kaphavatashamana, shvasaghna, vrishya, dipana, ruchya,

shothahara, hridya etc.[44] It pacifies shvasa roga if it is mixed with equal amount of sauvarchala salt and bharangi (*Clerodendrum serratum*) powder with twice amount of sugar and taken with lukewarm water.[45] It is mixed with pippali and aamalki and taken with honey and sugar repeatedly to pacify shvasa.[46] It is mixed with equal amount of powder of bark of bharagi and shallaki (*Boswellia serrata*) with sugar and taken with unequal amount of ghrita and honey to pacify shvasa roga.[47]

Other Indian medicinal plants useful in shvasa roga

Chanda *(Angelica archangelica)*, amlavetasa *(Hippophae salicifolia)*, surasa *(Ocimum sanctum)*, tamlaki *(Phyllanthus urinaria)*, jeevanti *(Leptadenia reticulata)* are the some other plants included in shvasahara mahakashaya by Charaka.[48] Beside these, there are some other plants which have shvasahara property like shirish *(Albizzi lebbeck)*, haridra *(Curcuma longa)*, ankota *(Alangium salvifolium)*, shallaki *(Boswellia serrata)*, bharangi *(Clerodendrum serratum)*, vasa *(Adathoda vasica)*, kantakari *(Solanum xanthocarpum)*, yashtimadhu *(Glycyrrhiza glabra)*, talisa *(Abis webbiana)*, marich *(Piper nigrum) etc.*[49]

CONCLUSION

From this article, it can be concluded that the shvasa roga, which occurs due to the obstruction of pranvaha srotasa (respiratory tract) caused by vata and kapha, can be managed by the removing this obstruction through the proper use of various medicinal plants having the vatakaphahara property, ushna veerya (hot potency) and vatanulomana action.[50] These drugs act either by drying up the excess kapha (mucous) secretions in the pranavaha srotas (respiratory channels) due to their ushna veerya (hot potency) property or by their kaphanissarana karma (expectorant action) as well as by their ability of broncho-dilatation. So from the Ayurvedic point of view, it is very clear that many Indian medicinal plants have great impact in the management of shvasa roga, however there is a need for scientific validation, standardization and safety evaluation of these traditional medicinal plants before these could be recommended for the same.

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