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CONCEPTUAL STUDY OF *SHWAS* IN CHILDRENS

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ABSTRACT

Shwasroga which is compared with Asthma or Reactive airway disease in modern medical science remains one of the most common ailments affecting an estimated 4-5% of the population as per statistical national survey of the population is concerned. The rate of asthma especially in children is increasing. *Shwas*described in *Ayurveda* is having its own importance. Children's suffering from *shwasroga* become apathetic and come into the stage of restlessness. In comparism with modern pediatrics this notorious pediatric disorder has been emphasized much by *Ayurvedic Acharya*. There are five types of *shwas*. *Shwas* in which upward movement of *vayu* is increased. *Shwas*is one of the major disease in which involment of *pranvahasrotas, rasavahasrotas* is observed. *Adhyashan* (excessive eating), *vishamashan* (faulty eating), *vishtambhi* & *shita* (cold) food stuff, personal habits of patients such as *divaswap* (daytime sleeping) are responsible to vitiate *kapha*. *Kaphaprakopak* and *vataprakopakhetu*(causes) are responsible for *shwas*. *Shwas* is most common disorder observed in pediatric age group. This gradually affects health in children's.

KEYWORD: *Shwasroga Shwas* in which upward movement of *vayu* is increased.

INTRODUCTION

Shwasroga described in *Ayurveda* is having its own importance. Clinically it is observed in every age group of the patients, but in pediatric age group this is commonest and can't be ignored because it hampers growth and development of the child. *Shwas* is usually seen being associated with other diseases as symptom and sometimes it develops as an independent disease. Children suffering from *shwasroga* become apathetic & restless.

Shwasroga is described by all the authors of *Ayurveda* from both the corners curative as well as preventive. In comparism to modern pediatric this disorder has been emphasized much by *AyurvedicAcharya*, but in present study our aim is to highlight *Tamak Shwas*, which is a common asthmatic disease. *Tamakshwas* is one of the specific form of *shwasroga*.

ETYMOLOGY OF TAMAK & SHWAS

The word *shwas* indicates one of the disease named as *shwas*. While it is also used as one of the symptom in various diseases such *pandu*(anemia), *hridroga* (heart diseases), etc.

The word *shwas*is masculine in gender. It has been mentioned that *shwas* is the basic word to which '*Ghaya*' preposition is added (*shabdakalpadrum* part5). It is further explained in *vachasaptyam* that *shwas* which confines the different *vayavyapare (vachaspatyam* part6).

The word *shwas*can be used for many functions of *vayu-rogabheda* and *shitotto* (means that act of enumerating the sound) is also the meaning of the *shwas*. It confines us that it is one type of disease which is troublesome to the life of the patient. Exhalation and inhalation have been used for *shwasuchhwasa* while asthma is used for *shwasa-kasa*. *Tamak* is also masculine in gender as *shwas*. *Charak* has mentioned five types of *shwas.* According to *vachaspatyam* the word *tamak* is derived as follows-

Tamak-Pu-Tasyatvam Tam Wa Wan
Shwas-Rog-Bheda-Tritswed

According to ShriTaranath '*Tam*' is also a part of *tamak. Tamak* means a kind of 'asthma'.

HISTORICAL BACKGROUND

Ayurveda the science of life has come forward to serve, the mankind, since the time, immemorial, which is nourished by different *vedas*. Some of the phenomenon's describing *Ayurveda* are available in the references in *vedas*.

Prevedic period- During this period no single reference regarding *shwasroga* is available.

Vedic period- *Ayurveda* is *upanga* of *Atharveda*. A chapter *Pranavidya* has been mentioned in *Atharveda*. *Atharveda* described *shwasrog*treatment in details in fourth *shukta* of fifth *kanda*.

Period of *Upnishada*- The word *shwas*is used for respiration in *Amanakopanishad* (A-1/33). In *Garudpurananidan*of *shwas* has been described.

SAMHITAKALA

- AacharyaCharakhas described Hikka and Shwas disease together in the 17th chapter of chikitsasthana. Charak has mentioned two types of Tamak-shwasi.e. santamak and pratamak.
- AacharyaShushrut has described shwas in separate chapter in uttarsthana. He has given only one type of tamakshwas i.e. pratamak.
- Aacharya Vagbhata has discussedhikka and shwas together.
- Harita has described shwas along withkasa. He opines thirteen types of paprupvyadhi which are caused by papkarma. Shwasroga is one of them.
- In Ashtanghridaya detail description of shwas is available in fourth chapter of Nidan-sthana and principles of treatment elaborated in the chikitsasthana.
- In Ashtang Sangrahadiagnosis and treatment of shwas is explained in nidan and chikitsasthana respectively.
- In kashyapsamhitashwasrog is not described but treatment is mentioned along withkasa.
- Madhavnidandescribed panch-nidanof shwasroga in hikkashwasnidanchapter.
- Chakrapani- Ayurved Dipikais very famous commentary on charaksamhitacommetedby chakrapanidutta. Shwas is explained in seventeenth chapter of chikitsasthana. He has considered Audho-amashayas pitta sthana, which is the site of initiation of shwas.
- Vangasen has written chikitsa-sar-sangrahreview of panchnidan andchikitsaof shwasrogais available in the twelth chapter.
- Rasartnasamuchaya- In this samprapti(pathology) of shwashas been explained. In which aamashay has been considered the main site of the pathology of shwas.
- In Sharangdharsamhitaphysiological phenomena of breathing is explained.
- Yogratnakar has described dietetic regimen for the patients suffering from shwas.
- Bhavprakashgiven detail description of shwasrogain fourteenth chapter.

Specific *Shwas* in pediatric age group is not discussed in *samhitas* but treatment of *shwas*in pediatric patients is explained.

Hetu (etiological factors)

*Hetus*are responsible factors to produce the any disease. Vitiated *dosha* and *dushya* are responsible to produce disease.

Some of the causes are related to the habits of the patients towards the food stuff, such as *adhyashana, vishamashana, vishthambhi* and *shita. Divasvapa*is a personal habit of the patients causing *shwas*. They are responsible to vitiate *kapha*, while some of them are vitiating *vayu*. Other causes are *Nidanarthakararoga*such as *kasa, pandu*are responsible to produce the *shwasa*.

Adibalapravriti(hereditary factor) is an important etiological factor causing *Tamakshwas*.

Samprapti

When the aggravated *vayu* along with *kapha* obstructs the channels of circulation and moves in different directions in the body, then the process of breathing gets obstructed, as a result of which *shwasa* is manifested (C.C.45).

Types of shwas

Shwasroga which is a serious ailment is characterized by breathlessness and therefore represents a single entity. It is however of five varieties namely *Mahashwas, Urdhvashwas, Chinnashwas, Kshudrashwas and Tamakshwas.*

Mahashwas

In *Mahashwas* patient's condition looks miserable raises his chest upward for expiration with loud sound. Due to obstruction patient takes deep breathing. He struggles day and night breath like mad bull. He loses the power of understanding and senses. His mouth and eyes remain open. He looks frustrated; he can't pass urine and stool. The voice of patient becomes feeble. The breathing sound is so loud that it can be heard from a long distance. The patient of *mahashwas*succumbs to death quickly.

Urdhavashwas

In *urdhavashwas*patient feels difficulty to perform inspiration as the aggravated *vayu* along with *kapha* obstructs the channel of circulation. The expiration is prolonged, inspiration is short. Due to excruciating pain the patient becomes unconscious. Due to excessive ventilation mouth becomes dry, Eyeballs remains fixed upwards.

Chhinnashwas

Characteristic of china *shwas* is interrupted breathing. Patient experiences pain at vital organs, because of this he becomes incapable to breathing. The patient suffers from sweating, fainting and *anaha*. His eyes remain open and one of his eyes become red, mouth becomes dry and the patient goes in the state of delirium. There

is discoloration of the complexion. The patient looses consciousness.

Kshudrashwas
This type of *shwas* is produced due to aggravation of *vayu* in a small measure in the *koshta*. The aggravation of *vayu* takes place due to excessive work, intake of unctuous food. It is a very minor type of painful condition. It does not obstruct the normal passage of food and drinks.

Tamakshwas
Samprapti- Tamakshwas is type of *shwas* where vitiated *kapha* is responsible for the obstruction so that *vayu* is vitiated. Deranged *kapha* is responsible to vitiate the *Pranvahasrotas*, *udanvahasrotas* and *annavahasrotas*. The derangement of *pranvahasrotas* might be occurring due to '*vimargagamana'* of vitiated *kapha*, i.e. *vimargagamana* of *kapha* from *amashaya* to *pranvahasrotas* and produces the obstruction to normal function of *prana* and *udanavayu*.

Six stages of *shatkriyakal* of *sushruta* correlating with asthma of modern medicine.

1. *Sanchayavastha*
It is described as the initial stage of beginning of disease prolong exposure to *nidana*(etiological factors) causes accumulation of *doshas* at their own sites. In modern view single and first exposure to the allergen cannot induce asthma in a susceptible person but a prolonged exposure is required for production of antibody against the allergen.

2. *Prakopavastha*
In *sanchayavastha* if *doshas*are not controlled as well as person continue toexpose himself to etiological factors the *doshas*will be further provoked leading to their maximum accumulation i.e. *kapha* in the *uraha*(chest) region. In correlation modern medicine says that *sensitation*of lymphoid tissues takes place due to prolonged exposure to the allergen, which results in the production of antibodies against the allergens specially the immunoglobulin's of IgE type.

3. *Prasaravastha*
Preventive measures must be taken in *sanchaya*and *prakopavastha* in order to control *doshas*, otherwise *doshas* will be further provoked by *nidan*.

4. *Sthanasanshraya*
It is the condition where the circulating *doshas* settles down in the organ or *srotas* which has got least resistance power and start the mischief there.

In this stage the *doshas*exhibit certain prodromal features (*purvaroopa*) the most common are frequent attacks of sneezing in the early morning, frequent and prolonged attacks of common cold characterized by running and choking of nose. In our day to day practice it is interesting to observe that most of the allergic asthmatic before having the first attack of asthma gives an old history of above complaints.

5. *Vyakti*
The precipitation of disease with all its cardinal clinical features is called *vyakti*.

Once most cells get sensitized more exposure to allergens causes the bridging of IgE molecules at the surface of mast cells resulting in their rupture and thus releasing chemical mediators of anaphylaxis in the system which in turn causes edema of mucus membrane as well as excessive secretion of mucous from the cells and bronchospasm. All the signs and symptoms of disease are seen in this stage.

6. *BhedaAvastha*
This is the stage of specific differentiation according to *doshaj* types. Modern medicine states that recurrent attacks of asthma may develop emphysema and corpulmonale.

Purva Rupa
Purvarupa is important symptom of a clinical manifestation by which pathological alarming conditions are signaled so that idea regarding probable disease can be achieved. At this stage we can administer particular line of treatment to avoid further manifestation of disease.

Rupa
Rupa is defined as the *vyaktaavastha*of *purvarupa*. The different symptoms of *vyaktaavastha*are called *rupa*of the disease.

DISCUSSION
There are five types of *shwas*explained in *samhita* but *Tamakshwas* is commonly observed in childhood/pediatric age group.

Vitiated *kapha* and *vayu*vitiate the *pranvahsrotas*, *Annavahsrotas*and *Udakvahsrotas*. *Vimargagaman* of vitiated *kapha* i.e. *vimargagaman* to *kapha* from *amashaya* to *pranvahasrotas*and produce obstruction to normal function of *prana* and *udanavayu*. *Anulomagati*of *vayu* is obstructed by which a vitiation of *vayu*takes place. This vitiated *vayu*is having the key role of impair the *pranavahasrotas*leads to *shwas*.

Stomach, lungs and heart are interlinked together. Heart pumps oxygenated blood through aorta and it's brought out body and collects the venous blood from superior and inferior vena cava. Mesenteric veins collects blood from intestine which is mixed with *bhukta rasa*(digested juice) and sends it to liver and then to inferior vena cava through which it goes to heart. Pulmonary artery takes the venous blood to lungs where the transfusion $O_2$and CO_2 takes place and

oxygenated blood returns to left atrium through pulmonary vein.

As these organs are interlinked the *saam* or *dushitkapha* from *aamashaya* is carried to lungs making *avalambakakaphasaam*. This *kapha* blocks the *srotas* causes *vataprakopa*. Due to *nidansevanvatavridhi* is taking place which causes dryness, constriction and rigidity in *pranvahasrotas*. Due to *agnimandya* digestion procedure gets disturbed and also excretion of waste material does not takes place properly which causes *apanvayuprakopa*. The upward movements of *apanavayu* creates *udana* and *pranavayuprakopa* more prominent leading to *tamakshwas*. Thus the *vayu* which is obstructed by *kapha* (*kleda*) gets excited and spreads in the whole lungs; manifest the symptoms of *shwasroga*.

CONCLUSION

In pediatric age group *Tamakshwas* commonly get observed. *Ayurveda* described *tamakshwas* from both the corners curative as well as preventive. In comparison to modern pediatrics this pediatric disorder has been emphasized much by *Ayurvedic Aacharya*. It is one type of disease which is troblesome to the life of the patient. It hampers the growth and development, day by day activity and school performens of the child.

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