

Aetiopathological Study of the Tamaka Shvasa Vis-À-Vis Bronchial Asthma

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ABSTRACT

The primary aim and objective of Ayurveda is to maintain the health of a healthy person and to eradicate the disease of a diseased person is the secondary one. This unique objective of Ayurveda maintains its superiority among all the prevailing system of health care even if today. Any change in the atmosphere and in living condition may bring the abnormality in our body thereby causing the diseases.

“Tamaka Shvasa which has been described elaborately in Ayurvedic literature is much similar to the Bronchial Asthma. Shvasa is a clinical entity expressed as various respiratory impairments, having five types and TamakaShvasais one of them. The word TamakaShvasa consists of two words, “Tamaka” means fainting/blackish discoloration in front of eyes and “Shvasa” refers to breathe. In Ayurvedic literature, Shvasa has been mentioned as a life-threatening disease in which TamakaShvasa is a Yajna disorder, which can be controlled only with lifelong therapy. TamakaShvasa is caused by the complex interaction of Ahara and ViharajaNidan which affects the equilibrium state of the Dosha, Agni, Dhatu and Malas. Sushruta has said the first principle of treatment of any disease is to avoid the etiological factors. So, it is important to understand the etiological factors involved in TamakaShvasa and its role in genesis of the disease. Besides, it is also important to study the Rogibala and Rogabala to select the appropriate therapy. Details about above research work will be described in this paper later on.

KEY WORDS: -TamakaShvasa, Bronchial Asthma, Pratamakswasha, Santamakaswasha.

I. INTRODUCTIONS: -

Shvasa or difficult breathing may be an independent disease or a symptom in so many diseases. When the symptoms are independent, requiring independent treatment, they should be

considered as disease entities, if they are dependent on other diseases, and relieved by the treatment of the original disease, they should be considered as symptoms. TamakaShvasa which has been described elaborately in Ayurvedic literature is much similar to the Bronchial Asthma. Shvasais a clinical entity expressed as various respiratory impairments, having five types and TamakaShvasa is one of them. The word TamakaShvasa consists of two words, “Tamaka” means fainting/blackish discoloration in front of eyes and “Shvasa” refers to breathe. ShvasaRoga has been classified under five headings in all the texts of Ayurveda.) MahaShvasa2) UrdhvaShvasa3) ChhinnaShvasa4) TamakaShvasa5) KshudraShvasa

The word Tamaka is derived from the root “TamTamyati”, which means darkness, suffocation, choke, exhaustion etc. Thus, TamakaShvasa is a disease in which patient feels darkness or suffocation or choking or exhaustion during the respiration. TamakaShvasa has been mentioned in all Ayurvedic literatures as a type of ShvasaRoga, Charaka has mentioned that when Vata becomes reverse in its course, reaches the Srotas, involves the neck and head, increases the mucus secretion and produce coryza. Obstructed by coryza, it produces a variety of dyspnoea associated with wheezing sound and painful respiration. TamakaShwasha further divided into two types as **Pratamaka and SantamakaShvasa.**

A patient suffering from PratamakaShvasa is overwhelmed by fever and fainting in addition to other symptoms of TamakaShvasa. It is caused by Udavarta, dust, indigestion, old age, and due to suppression of urges. While this variety of Shvasa is aggravated in the night and contrary to TamakaShvasa he feels relief with cold. The patient sometime observes himself drowning in the sea of darkness, this leads to nomenclature of this condition as “SantamakaShvasa”.

Material and Methods: - This study was carried out at OPDs/ IPDs of Dept. of RogaNidan Major

SD Singh PG Ayurvedic Medical & Hospital, Farrukhabad UP.

Study Population: -75 patients of TamakaShvasa(Bronchial Asthma) were selected from the OPDs/ IPDs for the present study.

Selection of Patients: -To conduct this study, patients of TamakaShvasa(Bronchial Asthma) fulfilling the inclusion criteria were registered irrespective of Sex, Socio-economic status and religion randomly. **Criteria of Diagnosis:** -The Criteria of diagnosis was based on cardinal features and associated signs and symptoms of TamakaShvasa(Bronchial Asthma).

Inclusion Criteria:-The patients between age group of 15-65 yrs irrespective of sex were

selected. Selection of the patients were done on the basis of three criteria.

(a) Clinical Diagnosis: -The patients were diagnosed by taking detailed history in the prepared questionnaire along with the presence of following cardinal symptoms of TamakaShvasa (Bronchial Asthma) –Breathlessness (Shvasa),Cough (Kasa), Wheezing (Ghurghurata), Chest tightness/heaviness and Presence of history of allergy,History of presence of Bronchial Asthma in either paternal, maternal or both in first and second generation.

(b) Pulmonary Function Test :- PFT was done to assess the degree of impairment from normal to severe based on values of FEV₁, FVC and PEFR as follows –

Table No.01

Test	Normal	Mild	Moderate	Severe
FEV ₁	> 80%	60–79%	40–59%	<40%
FVC	> 80%	60–79%	40–59%	<40%
PEFR	> 80%	60–79%	40–59%	<40%

(c) Laboratory Investigations: -Following tests were done to exclude other diseases –

1) Routine Tests –Blood - TLC, DLC, AEC, Hb%, ESR, Blood Sugar, Blood Urea.**Sputum -** For AFB, Eosinophil, Mycelium.**Stool Test -** For ova and Cyst (to exclude Helminthes infection).

2) **Urine-**Routine and microscopic examination.

3) **Radiological Investigations –**

4) **X-ray chest PA view –** To exclude TB, Bacterial infections, CHF and other pulmonary and cardiac diseases.

5) **ECG -** To exclude cardiac disease –

Exclusion Criteria -

- Patients of extreme age group i.e. below age of 15 yrs and above 65 yrs.
- Dyspnoea due to other diseases like COPD (Chronic Bronchitis, Emphysema) Upper Respiratory Tract Obstruction, Interstitial Lung Diseases CHF, LVF, Tropical pulmonary Eosinophilia, Allergic diseases, Bronchopulmonary Aspergillosis etc.
- Patients of Status Asthmatics
- Severely malnourished/debilitated patients
- Diabetes mellitus and hypertensive cases
- Severe renal and hepatic diseases
- HIV-Positive cases
- Pregnant and lactating women

Methodology of Evaluation –

Clinical Screening –Complete clinical examination of all the organ system of body especially Respiratory system was taken., Routine hematological tests, Biochemical tests,X-ray chest PA view, X-ray PNS, ECG, Spirometry, 2-D echo, IgE, Sputum test for AFB, Eosinophils, Mycelium,DashavidhaPariksha, Tailabindupariksha

II. OBSERVATION & RESULTS WITH DISCUSSION: -

Demographic study was carried out in 50 patients, out of which 20 (40%) patients were males and 30 (60%) patients were females. The majority of cases (24%) were found in the range of 36-45 yrs of age group. This study does not substantiate the reports regarding the prevalence of the asthma in adults where it is described as equal distribution among male and females. Probably it might have been possible if more cases would have been studied. **Occupational trends** observed in this study, it is found that maximum number of patients 13 (26%) were housewives, followed by servicemen 07 (14%), farmers 05 (10%), students 05 (10%), businessmen 05 (10%), animal husbandry 05 (10%), and labor 10 (20%). As the study population is very less it is very difficult to draw a conclusion regarding the relation between occupation and asthma. Still then the housewives are more exposed to the occupational agents like vegetable dusts, animal and insect dusts in the

house. Probably our study shows this trend due to the above factors. Maximum patients (62%) were found to be from rural area as this hospital is surrounded by the rural areas rather than the urban area. Besides, it may also be due to the fact that the rural people are more exposed to the allergens in comparison to the urban population.

Socio-economic status is concerned, this study reveals that incidence of the TamakaShvasa was observed maximum (54%) in middle class people followed by the incidence in lower class people (34%) and only 12% cases belonged to higher class. It may be due to the fact that the lower class and middle-class people have the chances for exposure to allergens than the higher income grade. Though we found more number of literate patients (72%) than the illiterate patients (28%) in this study, there is no such relation of education with the incidence of asthma established. 86% of cases were found having vegetarian food habit and 14% were found having mixed food habit and this may be due to the fact that the food habit in the surrounding area of this hospital is mainly vegetarian. Addicts were 66% while non-addicts were 34% in this study. On statistical analysis applying Z-test for proportion for the probability of relation of addiction with the asthma, it is found that the chances of addicts suffering from asthma is highly significant ($p < 0.001$) in 66% of cases whereas it is not significant in 34% of cases. Among the addicts, the incidence of tobacco chewing was 24% whereas the combination of two or more addiction was 26% out of which 26% of cases were having the addiction of both smoking and tobacco.

Regarding the incidence of **family history** is concerned, this study reveals that 70% of cases were having familial tendency for the predisposition of diseases. Only 30% cases had no family predisposition of TamakaShvasa (Bronchial Asthma). On statistical analysis applying Z-test for proportion for the probability of predisposition of family history with asthma, it is found that the chances of predisposition of family history causing the asthma is highly significant ($p < 0.001$) in 70% of cases whereas it is not significant in 30% of cases. The family history of atopic allergy (other than allergic respiratory disorders) showed that 56% of cases were having positive family history. 44% of cases were found having no relationship with family history of atopic allergic disorder. On statistical analysis applying Z-test for proportion for the probability of predisposition of family history of atopic allergy with asthma, it is found

that the chances of predisposition of family history of atopic allergy causing the asthma is significant ($p < 0.05$) in 56% of cases whereas it is not significant in 44% of cases.

Seasonal incidence showed that maximum patients (36%) were registered in spring season followed by 34% in rainy season. Rest cases were registered in winter, autumn and summer season. On statistical analysis by applying Chi-square test, it is found that the impact of season in causing asthma is highly significant ($p < 0.001$). This also substantiates the samprapti of TamakaShvasa as this is the disease having predominance of Kapha and Vata. Spring season aggravates Kapha and the Varsha season aggravates Vata. The significance in statistical analysis proved that the season has the great impact on incidence of asthma.

Observations on first onset of symptoms in different seasons revealed that maximum incidence (36%) of the first onset of symptoms of TamakaShvasa occurred in Vasant ritu followed by 34% in Varsha ritu, 12% in Shishir ritu, 08% in Sharada ritu and 04% in Hemanta and 06% in Greesamaritu. On statistical analysis, it is observed that the impact of season in onset of 1st symptom is highly significant ($p < 0.001$). This shows that the season especially Vasanta and Varsharitu have the significant impact on the onset of symptoms and both season aggravate Kapha and Vata respectively.

Exacerbation and remission of **symptoms related to seasonal variation** was analyzed by applying Z-test and it was found that the seasonal variation in exacerbation and remission is highly significant ($p < 0.001$) in 84% of cases and it was not related to seasonal variation only in 12% of cases. Fluctuated relations to seasonal variation were highly significant only in 4% of cases. Common allergens found in the patients of TamakaShvasa recorded during the history taking were analyzed and it was observed that exposure to dust was highly significant ($p < 0.001$) in 100% of cases followed by cloudy atmosphere in 92%, change in humidity in 92% and change in temperature in 76% of cases. Other allergens like birds, agarbatti, tobacco smoke, chulha smoke, perfumes were highly significant in less than 30% of cases. The presence of pets were found not significant ($p > 0.05$) in 48% of cases. **Dashavidha Pariksha** was done to assess the Rogibala and Rogabala. On **deha prakriti** analysis it was observed that Vata kapha prakriti was highly significant in 74% of cases followed by Vata pittan

12% and Pittakaphain 04% of cases. This study substantiates the principle that when the dehaparkriti is similar to the **dosainvolved** in the disease, then the disease will be difficult to cure. Here the dosas involved in TamakaShvasa are kapha and Vata, hence it is krichhrasadhya.

Vikrititahanalysis showed highly significant presence of Vatakaphadosa in 80% of cases followed by Kaphadosain 06%, vatapittain 08% and only vatadosain 04% of cases. This also substantiates the Samprapti of TamakaShvasa where it is mentioned that the dosa involved is Kapha and Vata. Analysis of **Sara parikshaw** was done and it was found that the Madhyama Sara was highly significant in 80% of cases followed by pravaraand avarain 12% and 08% of cases. **Satvaparikshaindicates** that the Madhyamasatvawas highly significant in 80% of cases followed by Avara and Pravarasatvain 12% and 8% of cases. Madhyamasamhananawas highly significant in 80% of cases followed by Pravaraand Avaraby 14% and 06% of cases respectively. Most of the cases (92%) were having SamaPramanawhich is highly significant on statistical analysis whereas visamapramana was highly significant in only 04% of cases.

When **Satmyaparikshaw** was analyzed, it was found that Madhyamasatmyawas highly significant only in 66% of cases followed by Avaraand Pravarasatmyain 28% and 06% of cases respectively. **Vaya parikshashowed** that 92% of cases were having Madhyamavaya, which is highly significant statistically, followed by Avaravayaand Pravavarayahighly significant only in 06% and 02% of cases respectively. **Ahara shaktiis** ascertained in two ways that is by Abhayharana shakti and Jarana shakti. When both were statistically analyzed, it was found that both were Madhyamain 66% of cases which is highly significant statistically followed by Avaraand Pravaraain 28% and 12% of cases respectively. When **Vyayama shakti parikshaw** was analyzed, it was observed that highly significant result was obtained as Madhyamavyayama shakti in 60% of cases followed by Avaraand Pravaraain 28% and 12% of cases respectively. Analysis of **Agni parikshaindicates** that Samagniwas highly significant in 64% of cases followed by Visamagni, Mandagnianand Teekshnagniin 26%, 08% and 02% of cases respectively. When **Kosthaparikshaw** was analyzed, it was observed that most of the cases (52%) were having MadhyamaKostha, which was not significant ($p>0.05$) statistically followed by MriduKostha in highly significant ($p<0.001$) only

in 8% of cases. KruraKosthawas not significant statistically in 40% of cases.

III. SUMMERY & CONCLUSION: -

Due to great diversity of disease and limited facilities, it was difficult to evaluate the exact etiological factors on various dimensions of bronchial asthma. It requires a specific selective sampling study with identical groups having large number of cases. Since it was a time bound study, we were unable to asses each and every etiological factor in detail. Whatever facilities were available in the present circumstances, full efforts were done to get the fruitful results and further study on large scale are proposed.

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