AN OBSERVATIONAL STUDY ON NIDANA PANCHAKA OF TAMAKA SHWASA W.S.R. TO BRONCHIAL ASTHMA

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ABSTRACT

Tamaka Shwasa or Bronchial Asthma is one of the most distressing diseases and is quite common in all the socioeconomic status in all the age groups and almost all over the world. The ancient sages knew the entity of this disease from very beginning. To and fro movement of air through the Pranavaha srotas is the vital sign of Prana, the normalcy of which suggests health. The abnormality of respiration indicates disease and its cessation marks death. This unique sign of life is affected in the disease Tamaka Shwasa. Understanding the Nidana Panchaka (Nidana, samprapti, purvaroopa, rupa, upashaya-anupashaya), etiopathogenesis and spectrum of presentation, diagnosis, complications, nature of disease constitutes the key for managing a tough disease like Tamaka shwasa. In this regard present study aims to unravel the key points in understanding the Nidana panchaka of Tamaka shwasa. Hence an observational study is planned to evaluate the Nidana panchaka of Tamaka shwasa and to understand the contribution of each nidana panchaka towards disease manifestation along with establishing correlation with Bronchial Asthma. In this study Bronchial asthma can be considered as the nearest clinical entity for Tamaka Shwasa.

Keywords: Tamaka Shwasa, Bronchial Asthma, nidana panchaka

INTRODUCTION

Tamaka Shwasa is one among the five varieties of shwasa explained in the classics of Ayurveda. The cardinal symptom of tamaka shwasa is difficulty in breathing. This abnormality of breathing as indicative of forthcoming death in the long run merits serious attention a person from being active. As per WHO 2011 health reports; about 235 million people suffer from bronchial asthma¹. The presentation of Tamaka Shwasa is peculiar in this regard. Patient is made to prop up instead of lying on the bed. This is the most comfortable position for the patient when the breath is diseased². Even though the patient is incapacitated, the illness forces him to sit down. Rest, in his dictionary, is not on the bed but on the chair. This is the pathetic situation of the patient. It is a common chronic inflammatory condition of the airways whose mechanism is not completely understood yet. The prevalence of asthma has risen in affluent countries over last 30 years but now appears to have stabilized with ~10-12% of the adults and...
15% of the children affected by the disease. It’s a heterogeneous disease with interplay between genetic and environmental factors.

The nidanas responsible for the manifestation of Tamaka shwasa are explained in all samhitas. That is why acharya has given much importance for nidana parivarjana in shwasa roga. Though the nidanas for tamaka shwasa is known to all, the contribution of each nidana towards the disease manifestation may be individualistic and needs to be understood. This will be helpful for the promotion of health status of patients of tamaka shwasa as avoidance of nidana is the basis of all the treatments.

Aim and Objectives:
- To study the nidana panchaka of Tamaka Shwasa.

MATERIALS AND METHODS
This is conceptual type of research, textual material are used for the study from which various references have been collected, Main ayurvedic texts used in this study are Charak Samhita, Sushrata Samhita, Astang-Sangrha, Ashatanghridya and laghutrayee available Commentaries on it, literature survey of modern text are also used. Research article available on internet also studied.

Methods of collection of data:
In this observational study, minimum 60 patients were selected from S.S.C. hospital on the basis of laxanas of Tamaka shwasa. Signs and symptoms of patients were assessed clinically with a detailed history taking, physical examination and laboratory findings.

Diagnostic Criteria:
The patients were diagnosed on the basis of structured questionnaire and case proforma which was prepared on the basis of Acharya Charka’s description of Tamaka Shwasa in Chikitsa Adhyaya 17 chapter.

Inclusion criteria:
1) Age : 20-70yrs
2) Patients presenting with lakshanas of Tamaka shwasa and signs and symptoms of Bronchial Asthma.
3) Patients were selected irrespective of their sex, religion, occupation and socioeconomic status.

Exclusion criteria:
1. Patients with acute attacks or severe exacerbations and status asthmaticus were excluded.
2. Patients with pulmonary TB, COPD, Bronchiectasis, cardiac asthma and tropical eosinophilia or with any other systemic disorders were excluded.
3. Patients with clinical features suggestive of acute and chronic infective disorders, Neoplastic disorders, - HIV we’re not be incorporated for the study.

INVESTIGATIONS:
- Hematological findings: Hb%, TLC, DLC, ESR, AEC and other necessary investigations. (if needed sputum examination)
- Radiological findings: CXR PA view

Other Investigations
a) Breath holding time (BHT)
b) Peak expiratory flow rate (PEFR)
OBSERVATIONS AND RESULTS

Graph-1 (A) Distribution of patients by Ahara Nidana

In this Distribution of patients by Ahara Nidana it is expressed that the Ahara Nidana impact over the Tamaka Shwasa. In which Vata Ahara Nidana consuming patient of category Sheeta pana and Rookshanna are recorded with Adhyasana. Pitta Ahara is not seen. Kapha related Nidana are Abhishyandi and Dadhi. Thus the statements drawn at the observations are supportive to the pathogenesis of the disease Tamaka Shwasa.

Graph-1(B) Distribution of patients by Vihara Nidana

Vata Vihara Nidana consuming patients of category Rajas and Vata are recorded with Sheetambu sevana and Karmahata. Pitta Vihara is not seen. Kapha related Vihara Nidana is Divaswapna. Thus the statements drawn at the observations are supportive to the pathogenesis of the disease Tamaka Shwasa.
**Graph 2:** Distribution of patients by Poorva Roopa

![Bar chart showing distribution of patients by Poorva Roopa](image)

*Poorvaroopa* like *Prana vilomata, Parshwa shoola, Arati* and *Bhakta dwesha* are predominant. Occasionally *Ksudra shwasa* and *Shankha Bheda* are also observed along with other symptoms enlisted in the tabular statements drawn at the observations are supportive to the pathogenesis of the disease *Tamaka Shwasa*.

**Graph 3:** Distribution of *Roopa* Assessments

![Bar chart showing distribution of Roopa Assessments](image)

- Teevra vega Shwasa (Dyspnonea) (R1)
- Kasa (Cough) (R2)
- Dukhena Kapha nissaranam (Expectoration) (R3)
- Ghurghuratwam (Wheezing) (R4)
- Peenasa (Coryza) (R5)
- Kruchrena bhasate (Difficulty in speech) (R6)
- Kantodhwamsham (Hoarseness of voice) (R7)
- Greevashirasangraha (Headache and Stiffness) R8
- Uraha peeda (Chest pain) R9
- Shayane Shwasa peedita (Discomfort at supine) R10
Roopa like teevra vega shwasa, ghurghurakam, uraha peeda and shayane shwasapeedita are predominant. Greevashirasangraha and Skantodhwamsam are also observed along with other symptoms enlisted in the tabular statements drawn at the observations are supportive to the pathogenesis of the disease Tamaka Shwasa.

Graph 4 (A): Distribution of Upashaya Assessments
Graph-4(B) Distribution of Anupashaya Assessments

In this Distribution of patients by upashaya-anupashaya, ushna upachara and aseeno labhate soukyam are observed more along with other comforts. Shayanath Shwasa piditaha, meghaihi abhivardhate and pragvata worsens the condition. Thus the statements drawn at the observations are supportive to the pathogenesis of the disease Tamaka Shwasa.

Graph 5: Distribution of Samprapti Assessments

The above graph shows vata and kapha pradhana samprapti and where as pitta pradhyya samprapti is comparatively less.

DISCUSSION
Discussion on Nidana Panchaka:
Nidana: Aharaja nidanas like intake of Sheeta paana, tila taila, vishamasana and viharaja nidanas
like exposure to duct, smoke and wind does the Kaphaadikyata. That Kapha obstructs the pathway vitiating the prana vaayu resulting in Tamaka Shwasa.

**Samprapti & Samprapti Ghatak:**

**Dosha:** Mainly vata (pranavata) and kapha (avalambaka) doshas are involved and pitta dosha as secondary. **Dushya: Rasa dhatu**- The imbalance of Vata and Kapha Dosha afflicts the Rasa Dhatu in the pathogenesis of Tamaka Shwasa. During the attack of Tamaka Shwasa almost all the symptoms of Kapha Dosha vitiation are mediated through the Rasa Dhatu. Among the list of symptoms: productive cough, sputum etc are the symptoms pathognomonic of Rasa Dhatu abnormality. Moreover, abdominal symptoms like Adhmana, Anaha are also the result of incriminated Rasa Dhatu. **Agni:** Mandagni is the usual process in the patient suffering from Tamaka Shwasa. The same is true in this group also. **Prana vaha Srotas:** prime symptom of Pranavaha sroto dushti is Atisrustam and Alpalpam. The adhistana of the vyadhi is uras i.e. chest in terms of pranavaha srotas, thus the symptoms pertained to that of pranavaha srotas is relevant. **Annavaha Srotas:** Symptoms observed in this are Aruchi, Ajeerna. All the disease manifestation as it is discussed from GIT and that too from stomach. The importance of Annavaha srotas and Amashaya is relevant with symptoms of Aruchi exhibited to state the disease is Amashaya samudbhava. **Udakavaha Srotas:** In this category Pipasa, Jihwa sosha and Oshtasosha are observed. The air ventilation is naturally through nasal cavity but when it is not possible gives rise to oral breathing, which causes the Jihwa sosha, which is an Udakavaha Srotas symptom. **Sroto dushti:** It includes sanga of vata dosha and ati pravritti of kapha dosha.

**Poorvaroopa:** In Tamaka Shwasa the course of the illness starts from Hridaya said to be afflicted adds the severity of illness. Kapha Dosha (Dosha) and Rasa Dhatu (Dushya) belonging to the same category and affliction of Hridaya indicates the acute onset chronic course and severity of illness. **Prana vilomata:** suggest that the symptom is related to Prana, Pranavaha srotas and the obstructive phenomenon of it. **Bhakta dwesha:** suggest that the disease is Amashaya samutha, producing Ahara dwesha. **Arati and Parshwa shooola:** these are observed. **Shankha Bheda nistoda:** It is a pain condition occurred because of Prana Urdhwa gati. **Prana vilomata:** it is observed as 59.9% it is suggest that the symptom is related to Prana, Pranavaha srotas and the obstructive phenomenon of it. **Bhakta dwesha:** it is observed as 50% patients having symptom suggest that the disease is Amashaya samutha. **Arati and Parshwa shooola:** these are observed as 43.3% Shankha Bheda: It is a pain condition occurred because of Prana Urdhwa gati and thereby observed as 40%. **Vibandha:** it is observed as 36.6% is because of the Prana Vata Urdhwa gati in Tamaka Shwasa.

**Roopa:**

Teevra Vega Shwasa and Ghrugurukatwam is pratyatma niyata lakshana of Tamaka Shwasa observed 100% in all patients. Kasa and dukhene Kapha nissarmam observed almost all i.e. 90%. **Peenasa** is a relevant disease associated and also a symptom, observed 83.3%. **Shayane Shwasa peeditam**, which is causing inconvenience in Tamaka Shwasa, is seen 80% suggests the blockage of Kapha while sleeping. **Uraha peeda** i.e. chest pain is observed as 76.6% as the chest is the seat of disease. **Agni:** as Agni is observed it is found that 53.3% of patients are subjected for the Agnimandya or Mandagni. It is explained in Ayurveda the Mandagni is the root cause of development of disease and Ama. **Prakruti:** Many patients are of Vata Kapha Prakruti observed in the study 56.6%. The disease manifest to the people with Vata Kapha people as the disease is of Kapha Vata Doshha predominant. **Prana vaha Srotas:** 70% of patients are reported with prime symptom of Pranavaha sroto dushti are Atisrustam and Alpalpam. **Annavaha Srotas:** Symptoms observed in this are Aruchi 40% Ajeerna 36.6%. All the disease manifestation as it is discussed from GIT and that too from stomach.
**Udakavaha Srotas:** In this category Pipasa is 53.3%. The other symptoms are Jihwa sosha and Oshtasosha are 20%.  
**Onset of disease:** The onset is observed, as gradual in many patients is 71.66%. It suggests that the disease in chirakari and takes the long time to manifest its symptoms.  
**Frequency of attack:** it is observed that few days onset is 56.66% in patients.  
**Periodicity:** An irregular periodicity is observed in the study with 53.33%.  
**Preceding factors:** these are sneezing, nasal irritation and cough out of cough is in 46.66% of patient.  
**Upashaya:** Comfort posture: Sitting was the Comfort posture recorded for the patients.  
**Anupashaya:** Dust and Smoke are observed as the aggravating factors.  
**Discussion on co-relation between Tamaka Shwasa and Bronchial Asthma:**  
Tamaka shwasa is predominantly caused by Pranavaha Sroto Dushti along with considerable involvement from annavaha and udakavaha srotas. The classical symptoms of Pranavaha sroto dushti as described by Charaka are seen in typical cases of Asthma. The airway pathology in Asthma in modern parlance corresponds literally with the Sanga purvaka vimarga gamana and Sankocha purvaka vimarga gamana pathology, resulting in atipravrtti of shwasa i.e. Dyspnoea. Acharyas have given a big list of nidanas which are Vata and Kapha prakopaka, sroto dushaka and also cause disturbances to Agni which in modern parlance explained in terms of triggering factors.  
The classification of etiological factors as Host and Environmental factors by World Asthma Council corresponds to Ayurvedic view of Nija Hetus which are Dosha-Dushya-Sroto, Dushtikara Hetu and Agantuja Nidanas like Raja, Dhooma etc. The male female ratio is 2:1. It is because of Male dominant society observing and moving or exposing to the etiology much more than that of Females who are staying at home. Though smoking has incriminatory effect on the respiratory system, badly affecting its defense mechanism, only in 15% of patients registered in the study, showed addiction to cigarette or beedi smoking. Since this addiction is common in males and the sample taken for the study showed predominance of males in number.  

**CONCLUSION**

In **samhithas** there are discrete references regarding tamaka shwasa. This particular study established nidana panchaka of tamaka shwasa w.s.r. to bronchial asthma and it is fulfilled clinically backed with Statistical details. The **Lakshanas** which are explained in Tamaka Shwasa are closely associated with the features of Bronchial Asthma which includes dyspnoea, wheezing, cough, and nocturnal attacks with disturbed sleep. Thus Bronchial asthma can be considered as the nearest clinical entity for Tamaka Shwasa.

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