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CORRELATION STUDY OF TYPES OF SHWAS VYADHI WITH MODERN SCIENCE

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ABSTRACT

Respiration is vital sign of life.In present era due to stressful modern living incidence of Bronchial Asthma are increases. Smoking, Atmospheric Pollution, Occupational causes, Dietary factors these are etiological factors of Asthma. In *Ayurveda* Bronchial Asthma is having *close* resemblance *with Shwas Vyadhi in Ayurveda* and according to its characteristics types of *Shwas Vyadhi* has been described. Symptoms of these types of *Shwas Vyadhi, Maha Shwas* with Biots Breathing, *Urdhawa Shwas* with Stertorous Breathing, *Chinna Shwas* with Chyne Stroke Breathing, *Kshudra Shwas* with Dyspnoea on effort or Breathlessness, *Tamak Shwas* with Bronchial Asthma can be correlated.

Keywords: *Shwas Vyadhi , Maha Shwas , Urdhava Shwas, Chinna Shwas*

INTRODUCTION

Asthma is defined as chronic inflammatory disease of airways that is characterized by increased responsiveness of tracheobronchial tree to multiplicity of stimuli. It is manifested physiologically by widespread narrowing of air passages[1]. According to WHO in India there are 15-20 million asthmatics are present worldwide and death rate reached over 180,000 annually .[2]

Shwas Vyadhi is disease of Pranavaha Strotas. The disease in which *Pran Vayu* is directed in upward movements resulting in sound like *Bhastrika i*s called as *Shwas* [3]The origin of *Pranavaha Strotas* is *Hrudaya* as well as *Mahastrotas*.[5] thus *PranVayu* is responsible for breathing out and breathing in , which is important for our living .

In present era due to stressful modern living incidences of Bronchial Asthma cases are increased. Smoking, Atmospheric Pollution, Occupational causes, Dietary factors these are etiological factors of Asthma[4]. In *Ayurveda* Bronchial Asthma is named *as Shwas Vyadhi* and according to its characteristics types of *Shwas Vyadhi are* described *Maha Shwas, Urdhava Shwas, Chinna Shwas, Kshudra Shwas, Tamak Shwas* are described. Symptoms of this type of *Shwas Vyadhi* can be correlated with Modern Science.

In this study we are trying to correlate Types of abnormal breathing and types of *shwas* for management and diagnosis of these emergency conditions.

AIM AND OBJECTIVES: 1) To correlate the *shwas Vyadhi* types with Modern Science.

TYPES OF *SHWAS VYADHI* :

1)**Symptoms of *Maha Shwas*[6]** *:* Because of upward movement of aggravated *Vayu* a patient take deep breath (*Uccha Shwas*)associated with loud sound continuously

like an intoricated bull, on account of obstruction to the respiratory channel . He loses his physical and mental senses, his eyes (eye balls) became bewildered, His eyes and face become distorted, He suffers from Anemia and Constipation, His voice becomes feeble, He loses mental stamina and his deep inspiration becomes audible even from distance this aliment is called *Maha Shwas* a patient suffering from this aliment succumbs to death instantaneously. This can be correlated with Biots Breathing.

Symptoms of Biots Respiration[7] : Biots Respiration is an abnormal pattern of breathing characterized by groups of quick, shallow,(*Uccha Shwas*) inspirations followed by regular or irregular periods of apnea. It is caused by damage to Pons due to stoke or Trauma or by pressure on Pons due to uncal or tentorial herniation. This type of Respiration seen in Meningitis or raised ICP.

2**) Symptoms of *Urdhwa Shwas*[6] :**

In *Urdhwa Shwas* following symptoms are seen Prolonged Expiration and inability to have Inspiration., Adhesion of mouth and breathing channels with phlegm, Affliction with aggravated *Vayu.*,Looking with eye ball moved upwards, Bewildereeyes,Unconsciousness, Affliction with excessive pain, Dryness Of mouth, Dislike for everything. This can be correlated with Stertorous Breathing.

Symptoms of Stertorous Breathing [8] : A stertor is a respiratory sound characterized by snoring or gasing. It is caused by partial obstruction of air way above the level of Larynx and by vibrations of tissue of Nasopharynx or soft palate, Pharynx (this distinguishes it from stridor which is caused by turbulent air flow below or in the Larynx) It is low pitched nonmusical and occurs during inspiration only .In general terms it is snory or snuffy sound.Stertorous Breathing occurs in Coma, Pneumonia, lung Abcess, or in dying patients and can be treated. Loss of nervous control of the pharynx, Soft Palate particularly from damage to instance by stroke or tumour to the vagus and hypoglossial cranial nerves causes Stertorous Breathing.In Pneumonia we can see the congestion due to Phlegm so the patient breathing pattern is Snory.

3) **Symptoms of *Chinna Shwas* [6]:**

Interruption or stoppage of breath (*Shwasiti Vichinnam*) on account of affliction of all the channels carrying vital air ,.Great Distress ,Affliction with pain as if a vital organ (*marma*)

is injured ,Affliction with constipation associated with flatulence sweating and fainting ,Burning sensation in the region of urinary bladder , Excessive tears in the eyes ,Excessive Emaciation ,One of the eyes becomes red while the patient struggles for breath, Mental bewilderment ,Dryness in mouth ,Discoloration of skin and delirium Lossness of joints This can be correlated with Chyne stroke Respiration..

Symptoms of Chyne Stroke Respiration[9]:

Chyne Stroke Breathing is characterized by progressive deeper and sometimes faster breathing followed by a gradual decrease that result in temporary stop in breathing called apnea .The pattern repeats with each cycle usually taking 30 seconds to two minutes. It is an oscillation of ventilation between apnea and hyperpnoea with a crescendo diminuends pattern, this phenomenon can occur during deep sleep, brain tumors hyponatremia. It may be caused by damage to respiratory centers or by physiological abnormalities in chronic heart failure and also seen in newborns with immature respiratory systems and can be treated. In Pathophysiology of Chyne

Stroke Respiration there occurs rhythmical alteration of apnea and hyperpnoea due to anorexia. Anorexia abolishes spontaneous rhythmic activity of breathing consequent apnea results in accumulation of carbon dioxide in the body thereby, causing hyperventilation. This causes carbon dioxide washout and results in depression of respiratory centre and apnea and thus cycle continues.

4*)* **Symptoms of *Kshudra Shwas* [6]**: In *Kshudra Shwas* following symptoms are seen:

Vayu mildly aggravated in the *Koshta* (gastrointestinal tract) on account of exertion and ununctuous regimen causes *Kshudra Shwas* (mild dyspnoea) It does not cause much discomfort in the body. The body is not too much afflicted thereby. It is not painful (difficult to cure) as other forms of *Shwas*. It does not obstruct the proper movement of food and drink. It does not cause any pain or complication in sense organs. This variety of dyspnoea is curable. This can be correlated with Dyspnoea on Effort.

Symptoms of Dyspnoea on effort or Breathlessness [10]: It is defined as difficulty in breathing disorder or inadequate breathing, uncomfortable awareness of breathing and is experience of breathlessness which may be either acute or chronic It is Mild Dyspnoea..It occurs in COPD, Myocardial infarction, Pneumothorax, Congestive heart disease, and can be treated. Different physiological pathways lead shortness of breath including via ASIC chemo receptors, lung receptors .It is thought that three main components contribute to dyspnoea these are afferent signals, efferent signals and some information processing.

5**) Symptoms of *Tamak Shwas*[6]*:*** *Vayu* moving in reverse order pervades the channels of vital breath afflicts the neck and head, and stimulates phlegm to cause rhinitis. This *Vayu* thus obstructed produces following signs and symptoms: *Ghurghur* gets tremors and coughs becomes motionless, injuries to life , Because of acute spasms the patient ,He faints again and again while coughing, since the phlegm does not come out ,he becomes all the more restless, He is relived for sometime soon after phlegm come out, His throat is chaoaked because of which he is unable to speak freely, He does not get sleep while lying down he gets (more of)

dyspnoea Because the sides of chest in that position get afflicted by *Vayu* but he is relived of this discomfort in sitting posture ,He develops special liking for hot things ,his eye balls become prominent (project outside) ,Too much sweating appears in his forehead and he becomes restless, mouth becomes dry frequently ,gets frequent paroxysm of dyspnoea, the attack gets aggravated when clouds appear in the sky ,when exposed to water (humidity) ,cold ,when easterly wind blows and when he resorts to *Kapha* aggravating food and regimens

Symptoms of Bronchial Asthma: [11]Typical Symptoms include recurrent episodes of wheeze (*Ghureguraka*), Chest tightness, Breathlessness and Cough these symptoms get exaggerated in cold weather, exposure to airborne allergens or pollutants.

***Samprapti* of *Shwas Vyadhi*[12]**: Due to increased *Kapha Dosha* there occurs Strotorodh in Pranavaha Strotas (blockage in respiratory system) due to this natural direction of *Vata* get obstructed and *Vata Dosha* gets *Pratiloma Gati* so that *Vata Dosha* dryness is increased and natural lubrication is disturbed causing difficulty in breathing, it becomes stressful with ef-

fort, rate of inspiration increases producing *Shwas Vyadhi*

Pathophysiology of Bronchial Asthma [13]: Asthma is an airway disease that can be classified physiologically as a variable and partially reversible obstruction to air flow and pathologically with overdeveloped mucus glands, air way thickening due to scarring.and inflammation, broncho constriction, the narrowing of airways in muscle. Bronchial inflammation also causes narrowing due to oedema and swelling caused by immune response to allergens. During an asthma episode inflamed airways react to enviormental triggers .The airway narrow and produce excees mucus, making it difficult to breath. The airways of asthma are patient are hypersensitive to certain triggers known as stimuli. In response to this triggers the bronchi (large airways) contract into spasm (asthma attack) inflammation soon follow leading to further narrowing of airways and mucus production which leads to coughing and other breathing difficulties. The normal caliber of bronchus is maintained by balanced functioning of autonomic nervous system which both operates reflexively This cycle persists till the stimulus is removed.

CORRELATION OF TYPES OF *SHWAS VYADHI* WITH MODERN SCIENCE:

Signs and Symptoms of *Shwas Vyadhi*	**Signs and Symptoms of abnormal breathing types**
***Maha Shwas*:** Deep Breath (*Uccha Shwas*) associated with loud sound like an intoricated bull.	**Biots Respitation:** Groups of quick,shallow,inspirations followed by regular or irregular periods of apnoea
***Urdhwa Shwas*:** Prolonged expiration and inability to have inspiration**.**	**Stertorous Breathing** Sound of Heavy snoring or Gazing
***Chinna Shwas*:** Interruption or stoppage of Breath. (*Shwasiti Vicchinam*) strugles for breath.	**Chyne Stroke Respiration :** Progressive deeper sometimes faster breathing followed by Gradual decrease resulting in apnoea.
Kshudara Shwas: Breathing difficulty on excertion**.**	**Dypnoea on Effort :** Impaired Breathing.
***Tamak Shwas*:** Ghurghurraka, Dypnoea of deep velocity Coughing, Restlees, Sweating excessively, As expectoration free felt relief, attack aggravated on exposure to humidity and cold.	**Bronchial Asthma :** Episodes of wheeze, chest tightness, Breathlessness, felt relief on stimulus is removed, Cough exaggerated in cold weather, exposure to allergens.

DISCUSSION

As we seen the abnormal breathing patterns of Respiration has various Pathological causes and it is seen in various emergency conditions. Types of Shwas Vyadhi can be correlated with this Abnormal breathing Patterns. These are useful for treatment and diagnostic purpose also and can be treated as per conditions

CONCLUSION

We can conclude that this Types of Shwas Vyadhi can be correlated according to its characteristics with Abnormal Breathing

pattern of modern science. So that management of this condition can be done.

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