



# Journal of Ayurveda and Integrated Medical Sciences

www.jaims.in

Indexed

An International Journal for Researches in Ayurveda and Allied Sciences





Journal of **Ayurveda and Integrated Medical Sciences** 

**REVIEW ARTICLE** 

May 2024

## Physiological concept of Vata Dosha in relation to **Brain Function**

#### Shilpa Soni<sup>1</sup>, Gitanjali Sasmal<sup>2</sup>, Vinay Bhardwaj<sup>3</sup>

<sup>1</sup>Post Graduate Scholar, Department of Kriva Sharir, NPA Govt. Ayurved College, Raipur, Chhattisgarh, India. <sup>2</sup>Professor and HOD, Department of Kriya Sharir, NPA Govt. Ayurved College, Raipur, Chhattisgarh, India. <sup>3</sup>Reader, Department of Kriya Sharir, NPA Govt. Ayurved College, Raipur, Chhattisgarh, India.

### ABSTRACT

Ayurveda is one of the worlds oldest form of holistic medicine and still widely used today, combining physical, psychological and spiritual health, ayurveda focus on whole body healing and states that a persons Dosha is dynamic principle that determines the personality and health. Ayurveda medicines is based on the idea that the world is made up of 5 elements - Aakash, Jala Prithwi, Tej, and Vayu. A combination of each element results in 3 humor or Dosha known as Vata, Pitta and Kapha.<sup>[1]</sup> These Doshas are believed to be responsible for a persons physiological mental and emotional health. every person unique ratio of Vata, Pitta and Kapha is said to define their Ayurvedic constitution<sup>[2]</sup> and a blueprint to achieve optimal health. Vata Dosha transports all other Doshas to various location where they produce diseases. Vata Dosha helps to excrete Mala from body thus helps to maintain homeostatic condition within body. moreover Vata Dosha regulate Agni, which is considered to be most important factor responsible for various physiological function like digestion absorption and metabolism, thus Vata Dosha regulates the state of mind and its activity along with the proper functioning of various sensory organ also. To reach the intended organ throughout the body, Vata must pass via the Vatavaha Srotas. These channels are split in two categories based on whether they serve motor or sensory purposes. One of the three basic Humours, Vata, has a significant impact on both health and sickness. The majority of Vata disorders mentioned in Ayurveda are classified by current science as neurological aliments. We must thus comprehend the physiological concept of Vata in this study with particular reference to the neurological system.

Key words: Vata Dosha, Manas, Prana Vata, Udana Vata, Samana Vata, Vyana Vata, Apana Vata

#### **INTRODUCTION**

Ayurveda, the traditional medical system of India, has delineated three categories of fundamental regulatory principles of the body, mind, and behavior. These three categories, called Doshas, are named Vata, Pitta, and Kapha. The category of Vata Dosha includes processes

#### Address for correspondence:

Dr. Shilpa Soni

Post Graduate Scholar, Department of Kriya Sharir, NPA Govt. Ayurved College, Raipur, Chhattisgarh, India. E-mail: shilpasoni987@gmail.com

Submission Date: 13/03/2024 Accepted Date: 22/04/2024

Access this article online	
Quick Response Code	
	Website: www.jaims.in
	DOI: 10.21760/jaims.9.5.27

responsible for cell division and cell signaling, movement at all levels of the physiology, excretion of wastes, and also cognition.<sup>[3]</sup> Vata also regulates the activities of Kapha and Pitta. The category of Kapha Dosha includes processes responsible for anabolism, growth and maintenance of structure, storage and stability. The category of Pitta Dosha includes processes responsible for metabolism, thermoregulation, energy homeostasis, pigmentation, vision, and attentional processes. All of Ayurveda institution accept the fact that, Dosha can be divided primarily into two categories, namely Sharir Dosha (controls the somatic activity) and Manas Dosha (controls the mental activities). Further Sharir Dosha are divided into 3 principal components namely Vata Dosha Pitta Dosha and Kapaha Dosha. Again, Manas Dosha are divided into two principal components namely Raja Dosha and Tama Dosha. Although some Acharyas refer Rakta as a fourth Dosha in human body.

#### ISSN: 2456-3110

#### Minuteness of Vata Dosha

- Vata Dosha as regulator of Mana and Indriya Due to its omnipresent character, Vata can pervade the minutest part of body and thus it can reach the Mana (mind) and Indriya (sensory organ) very subtly. In Vatakakaliya Adhayay of Sutrasthana of Charak Samhita, this aspect has been elaborately described under the function under the functions of Vata Dosha by Acharya Charak in following way;<sup>[4]</sup>
- Vata Pravartak Chaesthanamucchvachanam Vata promotes all types of actions.
- Vata Niyanta Praneta Cha Manasa Vata restrains and impels the mental activities.
- Vata Sarvendriyanamudyojaka Sarvendriyanambhivodha - Vata coordinates all the senses faculties and helps in enjoyment of their objects.
- (Vata) Pravartak Vachaha Prakriti Sparsh Shabdyo Shrostra Sparsh Nayormoolam Harshotsahyoryoni
  Vata prompts speech is the origin of touch as well as sound, root cause of the auditory and tactile sense faculties causative factor of joy and courage.

#### Vata types and effects on nervous system

**Pranvayu** - Prana Vayu controls the life sustaining defensive response. ANS's involuntary survival mechanism (sneezing coughing pupillary response, swallowing, vomiting) is linked to *Prana Vayu*. *Prana Vayu* regulates breathing, heart rate and blood pressure by stabilizing cardiac function and circulation. *Vata* performs two types of function<sup>[5]</sup> -

- Higher brain function it directs the intellect, mind, sense organ and their operation, and awareness are governed by these forces.
- Lower brain function include those connect to salivary gland, such as spitting and creating oral secretion, the nasal mucosa such as sneezing the gastric system such as food ingestion and stomach reception, and the pharynx, such as belching and chest motion. Mainly *Prana Vayu* circulating the chest and neck.

*Udaanvayu* - If Prana activity from nature to human body is considered as *Anuloma*, then direction of

*Udana Vayu* activity is *Pratiloma* i.e., opposite to *Prana* (although the activity area of both is same ) then direction of *Udana Vayu*.<sup>[6]</sup> *Udaana Vata* governs the intellect, speech, efforts energy memory and vitality in the chest. *Udaana Vata* aids in maintaining homeostasis by controlling breathing and heart rate. Production of speech is synchronized by audiosensory, audio-psychic and audio-motor centers of cerebral cortex. Impaired *Udaana Vata* results in speech difficulties, memory deficits, and altered sensory perception.<sup>[7]</sup>

**REVIEW ARTICLE** 

Vyanavata - Site of heart but the whole body is activity area. Vyana Vata regulates willpower and is necessary for the circulation of peripheral blood, it is crucial to the development of Rasa Samvahan (peripheral circulation). The Vata known as Vyana is thought to be quite strong (Mahajava). With this ability, this Vata sub-type maintains continuous, uninterrupted circulation of Rasa tissue throughout life. One of the main purposes of Vyana Vata, according to Sushruta and Vagbhata, is the ejaculation of semen during coitus. By considering the entire explanation provided above, the heart's conduction system and vasomotor nerve system can be directly compared to the functions of Vyana Vata.<sup>[8]</sup>

Samanyata - Gastrointestinal functions are constituted by Samana and Apana Vata. Samana Vata is mentioned by Susrutha as the foundation for Viveka Samana Vata has a significant impact on digestion since the ANS regulates it.<sup>[9]</sup> Reduced digestive ability and gastrointestinal motility are brought on by Samana Vata impairment.<sup>[10]</sup> In the alimentary tract, close to the digestive system, the Samana Vata is frequently compared to the Auerbach's plexus of nerves, which constitutes the main nerve supply to the gastrointestinal tract. Between the muscularis externals inner circular and outer longitudinal layers is where this plexus is situated. These nerve cells are a component of the enteric nervous system that causes peristaltic motions. Its alternate name is myenteric plexus. They are a component of the autonomic nervous system.

*Apanavata - Dharana* (controller of natural urges/excretory reaction) is attributed to *Apana* 

#### May 2024

#### ISSN: 2456-3110

*Vata*.<sup>[11]</sup> Autonomic pelvic reflexes necessary for urination and sexual activity are an *Apana Vata* trait. Impairment of *Apana Vata* leads to diseases of the lower gastrointestinal and genitourinary tracts. Defecation reflex, micturition reflex, fetal ejection reflex, menstruation etc. may be associated to *Apana Vata* functions.

#### DISCUSSION

Fundamentally, *Vata*, *Pitta* and *Kapha* make up the neurological, endocrine, and immunological systems - respectively of all living systems. *Acharyas* provide an explanation of *Vata*'s dominance over the other *Tridoshas*. The natural pacemaker from which all activities are started and managed is *Vata*. It is the fundamental component of humour that governs all bodily functions. Movement, communication, transportation, breathing, circulation, excretion and thought are all governed by the primary force of *Vata*.

#### **CONCLUSION**

The nervous system is the functional seat of *Vata*, according to the study mentioned above. *Vata*'s effects and the neurological system's effects are somewhat related. To make the connection, it is vital to comprehend the nature of the organ. It should be noted that the neurological system, an important location for *Vata*. Thus, *Vata Dosha* in its aggravated condition produces maximum number of diseases whereas in its normal condition it helps to maintain homeostasis of human body and acts as the most essential fact or for sustenance of life.

#### REFERENCES

- Sengupta Narendranath, Sengupta Balaichandra, editors. Caraka Samhita of Agnivesa. Janakpuri. 1st ed. Rashtriya Sanskrit Sansthan; 2002. Narendranath Sengupta & Balaichandra Sengupta, editors, (1st ed.). Sutrasthan. Caraka Samhita of Agnivesa. Janakpuri: Rashtriya Sanskrit Sansthan, 2002.p.202
- Sengupta Narendranath, Sengupta Balaichandra, editors. Caraka Samhita of Agnivesa. Janakpuri. 1st ed. Rashtriya

Sanskrit Sansthan; 2002. Narendranath Sengupta & Balaichandra Sengupta, editors, (1st ed.). Chikitsasthan. Caraka Samhita of Agnivesa. Janakpuri: Rashtriya Sanskrit Sansthan, 2002.p.202

**REVIEW ARTICLE** 

- Vaidya Jadavji Trikamji, Acharya Narayan Ram, editors. Susruta Samhita of susruta. 8th ed. Chaukhambha Orientalia; Sootrasthana. Varanasi: 2005. jadavji Trikamji Vaidya & Narayan Ram Acharya, editors, (8th ed.). Susruta Samhita of Susruta, Sootrasthana. Varanasi: Chaukhambha Orientalia, 2005.p.112
- Vaidya Jadavji Trikamji, Acharya Narayan Ram, editors. Susruta Samhita of susruta. 8th ed. Chaukhambha Orientalia; Sootrasthana. Varanasi: 2005. jadavji Trikamji Vaidya & Narayan Ram Acharya, editors, (8th ed.). Susruta Samhita of Susruta, Nidanasthana. Varanasi: Chaukhambha Orientalia, 2005.p.112
- 5. Shylaja Shrivastav, Sharangadhara Samhita. Poorva khanda. 2003.
- Sengupta Narendranath, Sengupta Balaichandra., editors. Caraka Samhita of Agnivesa. Janakpuri 1st ed. Rashtriya Sanskrit Sansthan; 2002.p.57
- Sharma P.V., editor. Ashtanga Hridaya of Vagbhata. 3rd ed. Chaukhambha Orientalia; Varanasi: 2000. P V Sharma, editor, (3rd ed.). Ashtanga Hridaya of Vagbhata. Varanasi: Chaukhambha Orientalia, 2000.p.98
- Sengupta Narendranath, Sengupta Balaichandra., editors. Caraka Samhita of Agnivesa. Janakpuri. 1st ed. Rashtriya Sanskrit Sansthan; 2002.p.143
- Schmidt A., Thews G. Janig, W. Human physiology. 2nd ed. Springer- Verlag.; New York, NY: 1989. Autonomic nervous system; pp. 333–370.
- Vaidya Yadavji Trikamji, Acharya Narayan Ram., editors. Susruta Samhita of susruta. 8th ed. Chaukhambha Orientalia; Sootrasthana. Varanasi: 2005.p.66
- Jadavji Trikamji Vaidya & Narayan Ram Acharya, editors, (8th ed.). Susruta Samhita of Susruta, Sootrasthana. Varanasi: Chaukhambha Orientalia, 2000.p.79

**How to cite this article:** Shilpa Soni, Gitanjali Sasmal, Vinay Bhardwaj. Physiological concept of Vata Dosha in relation to Brain Function. J Ayurveda Integr Med Sci 2024;5:169-171.

http://dx.doi.org/10.21760/jaims.9.5.27

Source of Support: Nil, Conflict of Interest: None declared.