

SADHAKA PITTA – CONCEPTUAL UNDERSTANDING**S Deepika¹, NR Navoday Raju², Kulkarni Pratibha³, Kekuda TR Prasanth⁴**^{1,2}P.G.Scholar, ³Associate Professor and Head, ⁴Associate Professor, Department of Kriya Shareera,

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ABSTRACT

Concept of *Tridosha* is a unique concept of *Ayurveda*. *Vata*, *pitta* and *Kapha* constitutes the body. Each one is important with its own specialty. Deficiency or absence of any one *Dosha* cannot serve the purpose of life, as they are responsible for *Srushti* (Creation), *Sthiti* (Maintenance) and *Laya* (Destruction) of the all creatures. *Sadhaka Pitta* is one among the subtypes of *Pitta* associated with certain mental faculties and emotions. These functions can be attributed to the functions of higher centers of brain carried out by neurotransmitters. This functioning of *Sadhaka Pitta* can be better understood with objective parameters like IQ tests and Memory scales. It is the area with vast scope for study and understanding. Functions of *Sadhaka Pitta* can be comparable with the functions of higher centers of the brain carried out by the neurotransmitters.

Key words: *Sadhaka Pitta*, *Buddhi*, *Manas*, *Hridaya*, Brain, *Smriti*, Memory, Neurotransmitters.

INTRODUCTION

Vata, *Pitta* and *Kapha* are the *Tridosha*¹. Being a maintainer (*Sthikaaraka*) of the body *Pitta* was given with utmost importance. *Sadhaka Pitta* is one among the five types of *Pitta*² associated with certain mental faculties and emotions³. Looking into the functions of *Sadhaka Pitta* it can be understood that these functions are much more advanced function related with higher brain centers carried out by neurotransmitters. The functioning of *Sadhaka Pitta* can be better understood with objective parameters like IQ tests and Memory scales. Here an attempt is being made to understand the concept of *Sadhaka Pitta* with probable modern correlation for the better understanding of the concept.

MATERIALS AND METHODS

The *Bruhatrayi* were scrutinized regarding the references for the concept of *Sadhaka Pitta*. Later, physiological aspects were studied from modern physiology books and supportive probable correlation was done to build valid and reliable hypothesis.

AIMS AND OBJECTIVES

1. To understand the concept of *Sadhaka Pitta*.
2. To make probable comparison of *Sadhaka Pitta* with the functions of higher centers of the brain carried out by the neurotransmitters.

LITERATURE REVIEW***Pitta***

Vata, Pitta and Kapha are the pillars of the body. Each one has 5 subtypes which are situated in the different organs and perform different functions in the body. The term *Pitta* is derived from the Sanskrit root word '*Tapa*⁴' and it is having three meaning viz. *Tapa Dahe*, *Tapa Santape* and *Tapa Aiswarye*, which means 'to burn the ingested food, to generate heat and to attain the eight-fold nature (*Animadi*) respectively. *Dahana* does not indicate burning here rather it should be understood as *Paaka* (Metabolism) and can be interpreted as responsible factor for *Parinama* i.e. conversion or transformation⁵.

Sadhaka Pitta: It is one among the subtypes of *Pitta* associated with certain mental faculties and emotions. The word *Sadhaka* derived from the root word '*Saadha*' - which means 'to accomplish'⁶. It is the one which helps to achieve *Chaturvidha Purushartha* i.e. *Dharma, Artha, Kama and Moksha*⁷.

Sthana and Karma

- It is located in the *Hridaya* and it is responsible for intelligence (*Buddhi*), memory (*Medha*), self-esteem (*Abhimana*), enthusiasm (*Utsaaha*) and for the achievement of one's own aspirations⁸.
- *Pitta* located in *Hridaya* is to be known as *Sadhakagni* and its function is to enable one to achieve one's own aspirations. It dispels the *Kapha* and *Tamas* from *Hridaya* and enables the *Manas* to perceive the things clearly⁹. It also enables the reception of *Shabdha, Sparsha, Gandha* etc.,¹⁰

Hridaya- Brain

- Term *Hridaya* consists of 3 Sanskrit roots – *Hr- Harana* – receiving; *Da- Dana* – giving away/ in, *Ayana* – moving or maintaining a continuous activity of

two earlier functions¹¹. It is the site for mind with attributes like *Satwa, Rajas* and *Tamas*¹². It is the seat of *Chetana* in living beings, when this is invaded by *Tamoguna*, person gets sleep; *Satwaguna* is the cause for wakefulness¹³.

Pre frontal cortex- Functions¹⁴

- It is the anterior part of frontal lobe of cerebral cortex, in front of areas 8 and 44. This area has numerous connections with other areas of the cerebral cortex, thalamus, hypothalamus, limbic system, and cerebellum.
- It forms the center for the higher functions like emotion, learning, memory and social behavior. Short-term memories are registered here. It is the center for planned actions, it is the seat of intelligence; so, it is also called the organ of mind. It is responsible for the personality of the individual, various autonomic changes during emotional conditions, because of its connections with hypothalamus and brainstem.
- **Applied physiology:** Injury or ablation of prefrontal cortex leads to a condition called frontal lobe syndrome. Emotional instability, Lack of concentration, lack of initiation, Impairment of recent memory, loss of moral and social sense. There is failure to realize the seriousness of the condition in this syndrome.

Manas- Mind

- Indian philosophers as well as Indian system of medicine have paid much more importance to *Manas (mind)*. The possession of knowledge or ignorance is based on the mental activity alone. It is having many synonyms like *Hridaya, Chitta, Satwa* and *Cheta*¹⁵. It is responsible for *Pratyaksha Jnana*¹⁶. *Manas* is

also an *Indriya*, which brings about internal cognition like *Sukha* and *Dukha*¹⁷. *Buddhi* is the faculty of *Manas* which decides required action¹⁸.

- Thinking, planning, imagination, concentration, determination or whatever can be known by means of mind is regarded as its objects¹⁹. Control of sense organs, self-restraint, hypothesis and consideration (constructive thinking) represent the action of mind²⁰.
- Primary site of *Manas* is *Hridaya*. In western philosophy also this kind of thoughts are available. Plato opines that brain and spinal cord are the conductors of vital forces, on them the soul acts, the rational part of the soul acts on the brain. Aristotle on the other hand impresses that heart is the seat of consciousness. Descartes opines that seat of consciousness is located on the pineal gland²¹.

Interrelationship of *Buddhi*, *Medha*, *Smriti*

In the process of genesis of knowledge these are the steps involved and one is incomplete without the rest. They unite with one another to generate the knowledge so, in this sense they are undifferentiated.

Buddhi- Discrimination

- *Buddhi* is the faculty of *Manas*. It is the one which enable to differentiate between good and bad things²².

Medha- Intellect

- *Medha* is the faculty of *Buddhi* which has the power to retain the experiences and recall that retained knowledge timely according to the requirement²³.
- Human intelligence can be attributed to a circuit that links the frontal lobes, which are involved in planning, organization and other highly developed human abili-

ties, with the parietal region farther back in the brain, which integrates information from the eyes, ears and other senses. This Parieto- frontal integration theory (P-FIT) best accounts for the evidence that intelligence depends on several brain regions tightly linked by axon tracks that form superhighways of information²⁴.

Smriti- Memory

- *Smriti* (Memory) is defined as the ability to recall the past experience or information²⁵. It is also defined as retention of learned materials.
- Memory is stored in brain by the alteration of synaptic transmission between the neurons involved in the memory. Storage of memory may be facilitated or habituated depending upon many factors, such as neurotransmitter (Serotonin), synaptic transmission, functional status of brain etc.²⁶

Neurotransmitters²⁷

These are the chemical substances that act as mediators for the transmission of nerve impulses from one neuron to another neuron through synapses. Here are few examples with their involvement in different functions viz.

1. **Norepinephrine (NE)** - Plays roles in arousal (awakening from deep sleep), dreaming, and regulating mood.
2. **Dopamine (DA)** - Is active during emotional responses, addictive behaviors, and pleasurable experiences.
3. **Serotonin-** Involved in sensory perception, temperature regulation, control of mood, appetite, and the induction of sleep.
4. **Nitric oxide (NO)** – It plays a role in memory and learning.

DISCUSSION

1. *Hridaya* is a broad word with different meanings in different contexts. In this context *Hridaya* as a location of *Sadhaka Pitta* can be considered as *Masthishka* or Brain which is located in head region because all the functions what are all attributed to *Sadhaka Pitta*, which is supposed to be located in *Hridaya* are under the control of higher centers of brain (Prefrontal cortex). Considering this point *Sadhaka Pitta*'s functions can be better understood by considering the different functions of brain which are directly or indirectly related with brain. (Intelligence, Memory etc.)
2. Different IQ test (Wechsler Intelligence scale for children/ adults, Stanford-Binet Scale, Bhatia's Scale etc.,)²⁸ and Memory test (Wechsler Memory Scale) are available to measure the intelligence and memory of a person²⁹. By measuring the IQ and Memory levels in a person it may be possible to assess the functioning of *Sadhaka Pitta*. So objective parameter for the assessment of *Sadhaka Pitta* functioning may be considered as IQ tests and Memory tests.
3. *Abhimana* and *Utsaaha* are also functions of *Sadhaka Pitta* and they are more of subjective entities so, assessment cannot be done with the help of objective tools but individually one can feel the functioning of *Sadhaka Pitta* in his body.
4. *Sadhaka Pitta* should be considered as a factor or a factor complex that facilitates above functions especially intelligence, memory, self- esteem, enthusiasm and other emotional states. The substance or substances, either produced by or associ-

ated with the *Mastishka*, with functions similar to those ascribed to *Sadhaka Pitta*, may be considered as various neurotransmitters. For example, acetylcholine, norepinephrine, dopamine, serotonin, glutamic acid etc., of CNS³⁰.

CONCLUSION

Sadhaka Pitta with its location as *Hridaya* can act as an instrumental tool for achieving Intelligence, Discrimination, self-esteem and enthusiasm. It is the one whose functions are very much similar with the functions of higher centers of the brain carried out by different neurotransmitters. The objective assessment of functioning of *Sadhaka Pitta* is possible by evaluation of IQ and Memory levels in a person. So there is a vast scope for the assessment *Sadhaka Pitta* with its structural or functional location and its activity in future.

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