



IMPORTANCE OF PAPEZ CIRCUIT (*DHEE DHRITI AND SMRITI*)

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ABSTRACT: -

The world is becoming more and more interested in the possibilities of *Ayurveda* because it is considered the first branch of life science and discusses how to avoid and treat lifestyle illnesses. *Ayurveda* is a fantastic alternative for treating lifestyle diseases because of its holistic approach, which treats the patient as a whole and means interventions are focused on total physical, psychological, and spiritual well-being. *Purusartha Chatushtaya* (*Dharma, Artha, Kama, and Moksha*), according to ancient Indian *Rishi-Munis*, is the ultimate goal of existence. The only way to achieve this *Purusartha Chatushtaya* is to live a healthy, long life. Everyone must adhere to the norms, guidelines, and conducts specified in *Ayurveda* In order to achieve this¹.

Papez circuit is the interconnections between various structures of limbic system, which form a complex of closed circuit. Hippocampus is connected to mamillary bodies of hypothalamus via fornix. Papez circuit plays a role in memory¹.

Mana (the mind) is a vital component of existence that affects the state of life as a whole². Due to stress and unbalanced emotions, psychosomatic diseases—where a person's *dhee, dhriti, and smriti* are affected—are becoming more common in the current period. *Smriti* (memory) is nothing more than the recall of certain events. Already heard, seen, or experienced. One of the eight *aishwaryas* (desires of the gods), it is described as power that can only be obtained by using complete mental concentration. *Smriti* is among the most complicated people.

KEY WORDS :-

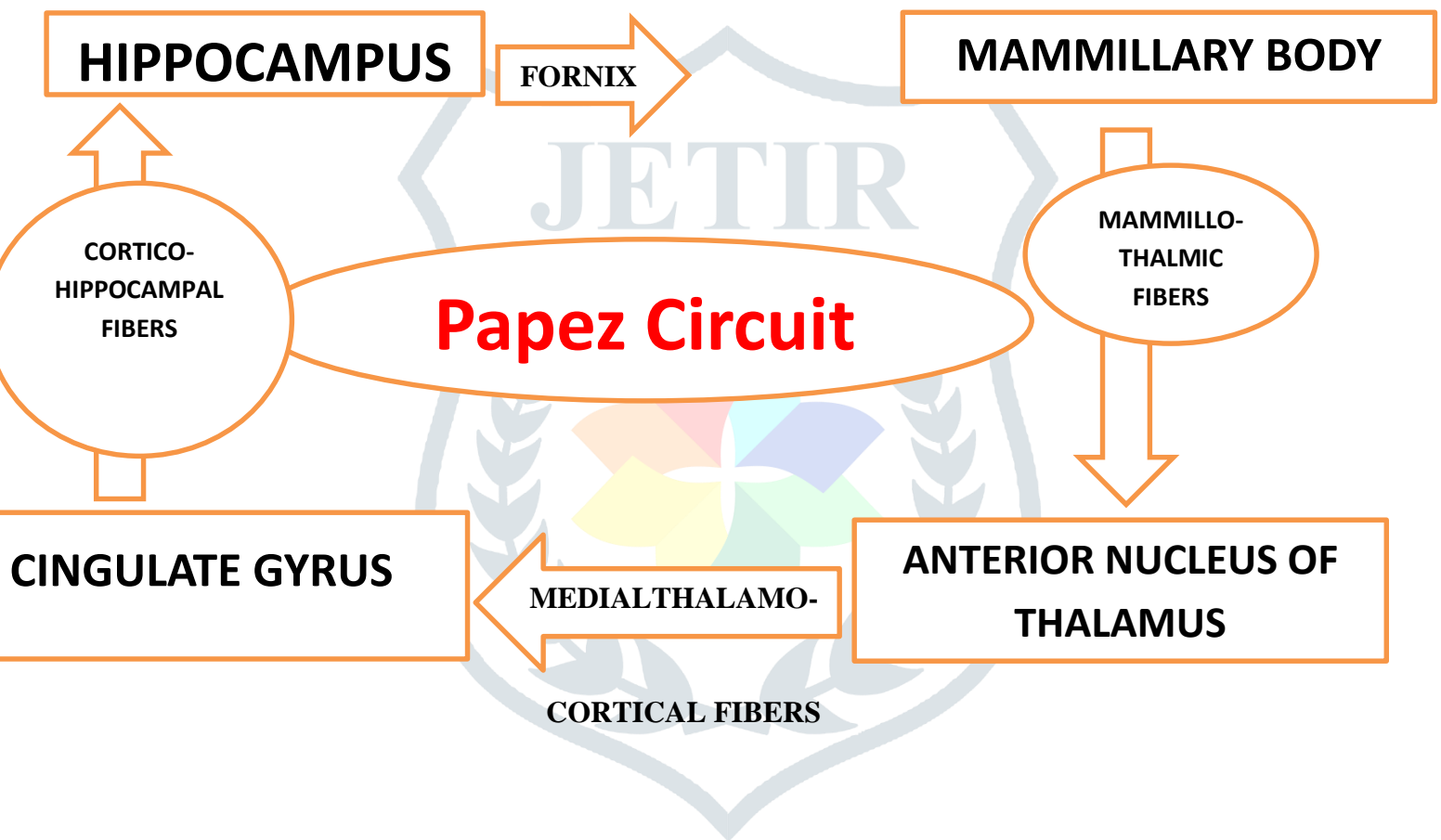
Ayurveda, Purusartha Chatushtaya, Mana, dhee, dhriti, smriti, Papez circuit

INTRODUCTION:-

The recall of previously directly perceived, heard, or experienced events is known as *smriti*. Recall is the higher mental process used to encode, store, and retrieve information. It plays a significant part in the perception of intelligence, or *buddhi*.

Smriti has closer ties to *Manovyapaar* and *Buddhi*. It is the synchronised firing of neurons that were involved in the initial experience that recreates previous experiences. *Mana* is crucial to the process of memory consolidation and acts as a coordinating force.

The several Gyanendriyas (sense organs), which connect the atma with the surrounding world. Ayurveda is a science founded on the idea of functional comprehension.



(*Buddhi*) attainment of knowledge, Acquisition and learning बुद्धि निश्चयात्मिका, समं बुद्धिर्हि पश्यति।

Intelligency :-

Having or showing the ability to understand learn and think :clever

(*Smriti*) recollection of previously experienced meaning, Recall or long term memory,

(*Medha*) power to retain knowledge, मेधा - धारणवती बुद्धि

Grasping power :-

Holding and retention power ,

Memory :-

A person has ability to remember things,

(*dhriti*) satisfaction of mind, Retention of information (धृतिः मनसोऽचाञ्चल्यम्। "*dhriti* "That is, imperturbability of mind (stability)³, धृतिस्तु-नियमात्मिका,

'बुद्धिज्ञानम्, अनेन च स्मृतिचेतनानृत्यद्वारादीनां बुद्धिविशेषावां ग्रहणम् ॥ आयुर्वेद दीपिका-

धीधृतिस्मृतयः प्रज्ञाभेदाः ।

तस्मादसमदर्शन- बुद्धिविभ्रंश, (असम दर्शनम्)

समं बुद्धिर्हि पश्यति:- उचिता बुद्धिः, सर्वं यथाभूतं यस्मात् पश्यति ।

ENHANCE INTELLIGENCE AND GRASPING POWER BY GOOD MANNERS :-

सतताध्ययनं वादः परतन्त्रावलोकनम् ।

तद्विद्याचार्यसेवा च बुद्धिमेधाकरो गुणः ॥ सुश्रुत चिकित्सा स्थान २८/२७

सतताध्ययनं Continuous study about knowledge of life

वादः Debate, Quiz

परतन्त्रावलोकनम् Knowledge about basic principle तद्विद्याचार्यसेवा Respect to elders

Impairment conditions:-

धीधृति स्मृति विभ्रंशः कर्म यत् कुरुतेऽशुभम्

प्रज्ञापराधं तं विद्यात्-सर्वदोष प्रकोपणम् । च. शा .१/१०२

बुद्धिविभ्रंश का लक्षण –

विषमाभिनिवेशो यो नित्यानित्ये हिताहिते । शेषः स बुद्धिविभ्रंश समं बुद्धिर्हि पश्यति ॥ च. शा .1/99

Daily and non-daily, and beneficial and harmful actions. The odd (opposite) orientation of time and meaning of the intellect is called intellectual confusion, because the intellect sees it as it is, that is, it is the same⁴.

धृतिभ्रंश का लक्षण-

विषयप्रवणं सत्त्वं धृतिभ्रंशान शक्यते । नित्यंतुमहितादर्थाधृतिर्हि नियमात्मिका ॥ च. शा .1/100

The mind inclined towards sensual desires cannot be prevented from doing harmful things due to *Dhrittibhramha* because *Dhriti* itself is the one who regulates the mind⁵.

स्मृतिभ्रंश का लक्षण-

तत्त्वज्ञाने स्मृतिर्यस्य रजोमोहावृतात्मनः । भ्रश्यते स स्मृतिभ्रंशः स्मर्तव्यं हि स्मृतौ स्थितम् ॥

च. शा . 1/100

The mind of a person with such a soul is covered with *Raja* and *Moha (Tama)*, the memory of *Tattvagyan* (truthful knowledge) is destroyed. It is called memory loss, because all the things worth remembering are dependent on the actual memory⁶.

Manovyapaar and Buddhi- A Cause Effect Relationship:

The four entities *Indriya*, *Indryartha*, *Mana*, and *Atma* work together to develop *gyaana* (knowledge). The following is the process of learning. For the purpose of learning, *mana* conjugates with *atma* (the supreme power soul). Only those who possess these skills can replicate the knowledge they have learned³.

Physiological Aspect of *Smriti*:

Our body's functional representatives are known as doshas. The primary dosha that regulates the mind's natural operations, or "niyanta praneta cha manasa," is vata. *Udana Vayu* is the primary dosha engaged in the process of achieving *smriti*⁷.

When processing memories, *Prana vayu*, *Udana vayu*, *Sadhaka pitta*, and *Tarpaka kapha* work in concert. Knowledge of cause, knowledge of form, knowledge of similarity, *Nimitta*, *Rupagrahana*, and *Sadrusya* Knowledge of contrast (*Saviparyaya*), mental focus (*Satwanuvandha*), and practise (*Abhyasa*), *Gyanayoga* (Acquiring

knowledge of metaphysics), *Punahsrutat* (Following partial communication of the eight elements that contribute to a good memory .

MODERN VIEW :-

The basic cell for transforming information inside the nervous system is the neuron. A particular type of neuron known as a sensory neuron detects a stimuli. The sensory information then moves through the nervous system by interacting electrochemically with other neurons. The sensory memory stores this sensory experience for a brief period of time.

The limbic system is crucial for processing and storing memory. Emotional behaviour and motivational motivations are governed by neural circuitry. The limbic system's hippocampus developed into a crucial tool for making decisions by assessing the significance of the incoming sensory information⁸.

The hippocampus is responsible for converting short-term memory to long-term memory. Is that the hippocampus sends some sort of signal to cause the brain to repeatedly practise the new information until permanent storing is accomplished⁹ .

LEARNING :-

„ DEFINITION

Learning is defined as the process by which new information is acquired. It alters the behavior of a person on the basis of past experience. „

CLASSIFICATION OF LEARNING Learning is classified into two types:

1. Non-associative learning :- Non-associative learning involves response of a person to only one type of stimulus. It is based on two factors:

i. Habituation :- Habituation means getting used to something, to which a person is constantly exposed. When a person is exposed to a stimulus repeatedly, he starts ignoring the stimulus slowly. During first experience, the event (stimulus) is novel and evokes a response. However, it evokes less response when it is repeated. Finally, the person is habituated to the event (stimulus) and ignores it.

ii. Sensitization:- Sensitization is a process by which the body is made to become more sensitive to a stimulus. It is called amplification of response. When a stimulus is applied repeatedly, habituation occurs. But, if the same stimulus is combined with another type of stimulus, which may be pleasant or unpleasant, the person becomes more sensitive to original stimulus. For example, a woman is sensitized to crying sound of her baby. She gets habituated to different sounds around her and sleep is not disturbed by these sounds. However, she suddenly wakes up when

her baby cries because of sensitization to crying sound of the baby. Thus, sensitization increases the response to an innocuous stimulus when that stimulus is applied after another type of stimulus.

2. Associative learning :- Associative learning is a complex process. It involves learning about relations between two or more stimuli at a time. Classic example of associative learning is the conditioned reflex,

MEMORY

DEFINITION

Memory is defined as the ability to recall past experience or information. It is also defined as retention of learned materials. There are various degrees of memory. Some memories remain only for few seconds, while others last for hours, days, months or even years together.

Discussion:

Smriti assists the mind in recalling all perceived or experienced objects based on concepts created by prior experiences.

Acharya chakrapani states that chetana, dhrti, smriti and ahamkara are the types of budhi. Smriti is a component to bring about the attachment. It is obvious that without Smriti, the function of Buddhi is impossible. Buddhi cannot develop without uhapoha and vichara, which comes through smriti or past experiences. Buddhi is of two types. Kshanika and nischatmika. Kshanika buddhi may be correlated with working memory. Prefrontal area of cerebral cortex keeps track of many bits of information simultaneously and to cause recall of this information instantaneously as it is needed for subsequent thoughts which is required to develop kshanika buddhi. Kshanika buddhi (short term memory) may be converted into nischatmika buddhi (long term memory)

Conclusion:

Mana is called as *ubhayendriya* (both *gyanendriya* and *karmendriya*). It supports in the function of both sensory and motor part of nervous system. The part of nervous system which synchronizes both sensory and motor part of nervous system is called as *mana*. According to its function it is generally responsible for generation of thoughts which comes from *smriti*, *smriti* comes from the *gyana (buddhi)* which is processed by the help of *atma*, *mana*, *indriya*, and *indriyarth*. So the structures like cerebral cortex, limbic system (hypothalamus, hippocampus, basal ganglia, amygdala), upper reticular formation of brain stem may be represented as *mana*. The structures like reticular activating system, limbic system, cerebral cortex, wernicke's area, angular gyrus area is responsible for storage and recollection of memory.

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