

APASMARA – A NEUROPSYCHIATRIC STIGMA

Dr. Mamata Bhagwat

Professor and Head, Department of Kayachikitsa Bapuji Ayurvedic Medical College and Hospital, Challakere Karnataka. – 250782

ABSTRACT:

Ayurveda puts forth the view of interdependence of body and mind in all circumstances. The duo having well-coordinated pattern of existence and functioning, would also exhibit the diseases in psychosomatic pattern. *Apasmara* – the disease characterized by its peculiar features like convulsive movements, frothy discharges from mouth, up rolled eyes and above all, temporary loss of memory stands first in the category. Having origin in *Manas*, manifested through nervous system and ending with *Manas* by loss of a major function of mind that is *Smriti*.

It is a stigma because of the long term medication, unsatisfactory treatments and the personal as well as social restrictions the person has to face. An attempt is made to analyze the disease in terms of its origin, etiopathogenesis, the clinical patterns of manifestation and also the management. Logical analysis is tried to decipher the involvement of Mind and Nervous system (*Hridaya, Indriya, Sattwa Samplava*) in each level of the disease.

Key words: *Apasmara, Stigma, Neuropsychiatry, Smriti, Hridaya, Manas*

INTRODUCTION:

The life *Ayu* is continuum of harmony between *Kaya, Indriya, Mana* and *Aatma*. Ayurveda considers the *Satwa* and *Kaya* work in symbiotic relationship with each other.

Shareeram khalu satwamanuvidheeyate, Satwam ca shareeram.

Both *Shareera* and *Satwa* experience the *Dukkha* and hence are abode of disease also.

Apasmara as its definition itself will depict –

It is a disease when faculties of mind like *Smriti, Artha Vijnana, Buddhi, and Satwika Guna* are affected. Somatic imbalance and psychic disturbances in sequelae manifest into this condition.

The intercommunication between physical as well as psychological objectives play a vital role in continuing health. An individual continues to have this co-ordination for the flow of consciousness. When this co-ordination is disturbed and psychological faculties get disturbed they are categorized under psychiatric disorders.

Views to establish *Apasmara* as a neuropsychiatric disorder

Apasmara is a disease where in profound relation between memory and conscious is clearly established. *Smriti* – Fundamental knowledge based upon experiences acquired through sense and motor organs.

Apasmar by definition

Smriti Bhootaartha Vijnanam Apashca Parivarjane |

Apasmara Iti Prokto Tatoayam Vyaadhirantakrit ||

The word '*Apa*' means that which is vanished, nullified, or gone. '*Smaard*' means Memory. So the disease in which the *Bhootartha vijnana / Smriti* is lost is called *Apasmara*.

Memory in terms of psychology – it is a process in which information is encoded stored and retrieved. Pure

quality of mind *Satwa, Dhee- Hitaahita jnana*, and *Smriti* - mental immunity, which protect mind in all adverse conditions. In *Apasmara* both intellect and mental immunity are afflicted leading to poor forbearance, *Apasmara* mainly *Apagata smaara* i.e. memory loss has a very clear link for *Dosha* diet and *Mana*. Thus *Apasmara* starts with bewildered *Doshas* and ends in bewildered state of mind.

Neuropsychiatry is a branch of medicine that deals with mental disorders attributable to diseases of the nervous system. It addresses clinical problems of cognition and / or behaviour caused by brain injury or brain disease of different aetiologies. Behavioural Neurology and neuropsychiatry is defined as a medical subspecialty committed to better understanding links between neuroscience and behaviour and to the care of individuals with neurologically based behavioural disturbances.

Neuropsychiatric conditions include mainly Addictions, Childhood and development, Eating disorders, Degenerative diseases, Mood disorders, Neurotic conditions, Psychosis, Sleep disorders, etc.

For a long time, correlation between epilepsy, seizures and emotions have been fascinating generation of clinicians and neuroscientists. Hippocrates quoted that- "Melancholies ordinarily become epileptic's melancholies, what determines the preference in the direction the malady takes, if it bears upon the body – epilepsy; if upon the intelligence – melancholy".

Cognitive dysfunction is a frequent problem in people with epilepsy and should be a challenge for the treating neurologist. Several causes could be at the base of cognitive complaints in an individual patient.

1. Continuing Seizures.
2. Depression
3. Adverse effect of anti epileptic drugs.
4. Deleterious effects of secondarily generalized epileptic seizures on cognitive function.

Memory Problems:

Difficulty in learning, slow thinking, sleepiness, inability to do activities or to achieve goals. Kimform J Meador MD states – Epilepsy is not one disease and there is a tremendous amount of variation from patients who are highly intelligent with cognitive performance

completely intact to patients who are severely mentally retarded.

Cognitive impairment or memory problem in people with epilepsy.

Brain damage to genetics or any other function. All of these cause cognitive impairment.

Thus though the most prominent feature of epilepsy are the seizures, but mental health may be also involved including memory deficit learning disabilities, behavioural problem and poor social income.

Origin of Apasmara –

*Vividha bhoota Ashuci Samsparshaat
Apasmaaranam |*

Apasmara is believed to be manifested due to coming in contact with various *Bhooṭa* and *Ashuci*. These 2 terminologies give us an idea of body coming in contact with some infectious agent and thereby leading to either sepsis or meningitis kind of clinical condition leading to manifestation of discharge of seizures.

Etiopathogenesis:

The etiological factors of *Apasmara* need to be categorized in to specific domains.

- DIET- Dirty, Stale, Contaminated, Unhygienic, Antagonistic, unwholesome food and eating such kind of food in inappropriate manner
- ACTIVITIES- Inappropriate and excess indulgence in *Indriyartha*s and conduction of Tantric techniques as well as body detoxification procedures, suppression of natural urges, unusual physical stress.
- INFECTIOUS - Sexual intercourse with menstruating lady, coming in contact with various varieties of *Bhoota* (microorganisms)
- ORGANIC DEFORMITIES – *Upakshaya* (the components of the nervous system lacking optimal nutrition) Antagonistic, stale and condemned food consumption leading to organic changes in nervous system, Excessively aggravated and accumulated *Shareerika* as well as *Manasika Doshas* causing deformities in the system.
- PSYCHOLOGICAL – Psychological stress factors like worries, grief, fear, desires, anxiety etc. affecting the mind thereby provoking *Raja* and *Tama Doshas of Manas*.
- OTHERS – Injuries, *Agantu Anubandha* in *Apasmara* (like flash lights, high altitude, depth, fire sight, flowing water)

Mode of Manifestation:

The aggravated *Doshas* keep circulating in the body they start occupying the *Hridaya* and the corresponding *Dhamanis*. *Manovaha Srotas* is the channel that connects the *Indriyas* to *Manas* and *Hridaya*. When this *Manovaha Srotas* is filled by the aggravated *Doshas* (*Tridosha* and *Raja, Tama of Manas*), the person loses his discriminating power –*Buddhi* hence loses his judgement. Thus accumulated vitiated *Doshas* start inducing stress to *Hridaya* and the *Indriya Ayatanas* (Sense organs and Motor centres). The threshold of *Hridaya* and *Indriya Ayatana* will soon be crossed and the person becomes the victim of an episode of *Apasmara*. (C N 8/4, C C 10/6, S U 61/8)

Analysis of Sampraphi:

Hridaya is abode of conscious and emotions. The *Shirohridaya* - origin of all sensory and motor organs is the one involved with emotions and feeling of self.

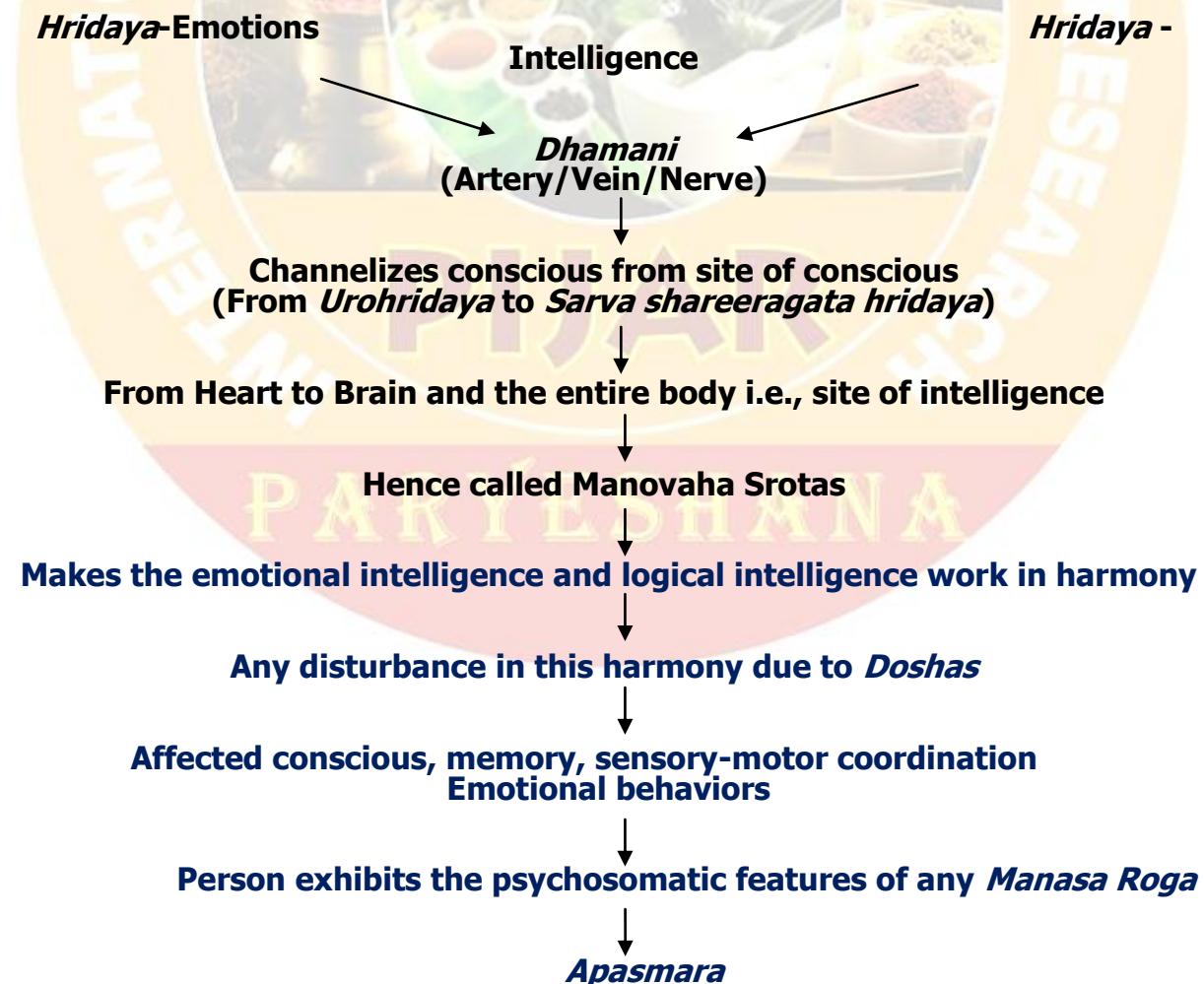
The word *Dhamani* which denotes the channel for afferent and efferent impulses or veins and arteries also. These *Dhamanis* only connect the conscious heart to conscious brain to channelizing emotions to the site of intellect.

This canal of heart brain connection is *Manovaha Srotas*.

The brain and the heart work in co-ordination with each other for maintaining equilibrium between logical intelligence and emotional intelligence. If these are hampered, the conscious, memory, sensory and

motor co-ordination as well as emotional behaviour of the individual will be affected.

This theory of neurocardiology establishes the theory that disturbance in cardiac function can result in neurological disorders. The heart brain connection has been authenticated by many researches on neurocardiology (Martin A Samuels – contemporary review in cardiovascular medicine, the heart brain connection 2007)



Cardinal features - Smriti Buddhi

Satwa Samplava - Affected cognitive, analytical and restoration functions of mind

Beebhatsa Ceshtam - Frothy discharge from mouth, abnormal body movements – convulsions

Avasthikam - Episodic / paroxysmal event

Tamah Pravesham - Being unconscious / comatosed

Factors in the relationship between epilepsy and behavioural disorders:

- Common neuropathology
- Genetic Predisposition
- Developmental disturbances
- Ictal neuro physiologic effects
- Inhibition or hypo metabolism surrounding the epileptic focus.
- Secondary epileptogenesis
- Alteration of receptor sensitivity
- Secondary endocrinologic alterations
- Primary independent psychiatric illness
- Consequence of medical or surgical treatment
- Consequence of psychological burden of epilepsy

Frequency of psychiatric disorders in patients with epilepsy

1. 20-30% of the patients with epilepsy have psychiatric disturbances
2. 58% depressive episodes
3. 70% of complex partial seizures-mental disorders
4. Risk of psychosis is 6-12% more than general population
5. Anxiety disorders

Diagnosis:

Identification of an epileptic syndrome requires clinical findings – i.e., type of seizures, age at onset, precipitating factors, severity and chronicity, circadian distribution, aetiology, anatomical location, Progress and all data of imaging techniques.

Premonitory features

Bhroovyudasa, Satatam Akshi Vikara - Varied and weird facial expressions

Ashabda Shravanam, Pashyati Asanti Roopani - Auditory and visual hallucinations.

Lala singhanaka sravanam - Increased salivation and nasal secretion as a result of increasing tonicity in the muscles

Anannabhilashanam, Arocaka Avipaka -Altered neurological mechanism

Hridaya griha, Kukshi Atopa - As tonicity increases in the visceral parts

Dourbalya Asthibheda, Angamarda - Increased tone of muscles leading to hyper extension and further leading to fractures

Patati Prasphurati -Loss of posture as the entire body muscles tremendously tone up

Moha Tamaso Darshana, Moorchha, Bhramashca Abheekshnam - Respiratory system tonicity leads to respiratory distress and further manifestations of cerebral hypoxia.

Swapne ca mada, nartana, vyadhana, vyathana vepana, patanadi - Hallucinations and altered mental functioning during sleep

Hasta pada vikshepa - Tonic clonic phase setting in, to completely manifest into Seizures.

Peculiar recovery from attack

Doshavege ca vigate suptavat pratibuddhyate |

The patient wakes up just like waking up from sleep after having an episode of epilepsy and slipping into coma. This is because of self-resolving pattern of coma observed in some neuropsychiatric conditions like epilepsy.

Types:

Apasmara takes classification into 4 types based on *Dosha* predominance.

Vataja type simulates that of typical grand mal epilepsy episode where as *Pittaja* resembles hysterical episode or grand mal with hysteria. *Kaphaja* type can be thought of seizures with the absence of tonic clonic convulsions.

Sannipatika Apasmara - Epileptic encephalopathy or malignant epilepsies are clinical situations where the continuous epileptiform discharges induce absence of cognitive development or mental stagnation followed by regression as long as they persist. (K Van Rijckevorsel www.elsevier.com/locate/yseiz)

Reference Centre for Refractory epilepsy.

Treatment:

The treatment protocol is consisting of important stages of treatment.

When the *Doshas* are in active phase and the episode is set in it is important to arise the person from coma as early as possible-

Tairavritanam Hrut Sroto Manasam Samprabodhanam |

The accumulated *Doshas* have to be evacuated from the body through *Teekshna Shodhana* namely *Vata* by *Basthi*, *Pitta* by *Virechana* and *Kapha* by *Vamana karma*.

Debility, Lose of intellect and abnormal sleep are the features of *Bahudosha*. The *Shodhana karma* removes all the features of *Bahudosha* and also brings about *Indriya Mano Buddhi Prasada* (C Su 16/13-19) *Acharya Caraka* further states that after detoxification of *Hridaya*, *Indriya*, *Shira* and *Koshtha* the *Manas* attains excellence and gains back the power of cognition in terms of reception, restoration and recollection.

Use of various animal products –

Reason behind use of several animal products like *Mootra*, *Pitta*, *Nakha*, *Kesha* etc. could be-

- 1) *Teekshnatwa* of the drugs may lead to severe stimulation of CNS
- 2) *Agrahyatva* – Non palatability of the medicines – diverts focus of the patient and tries to reduce frequency of consumption thereby channelizing mind.
- 3) *Satwabajaya* – Faith, assurance and Placebo action in a way that the patient may get feeling that a special or unusual and ultimate treatment being advocated for his problems.
- 4) *Anjana, Dhoopana, Varti* – Peripheral receptor stimulating / triggering the *Indriyas*.

Significance of *Nasya Karma*–

After *Ubhayato Shodhana*, *Nasya Karma* is the procedure advocated in all the conditions under the heading of *Apasmara*. The significance could be-
Nasa hi Shiraso Dwaram, Tena Tadvyapya Hanti taan | (C Si 9/88)
Nose is the route to the head. Hence nasal instillations draw more significance in neurological / psychiatric conditions. It is important to note that the *Shringataka Marma* which is a conglomeration of 4 veins draining from the region of nose, eyes, ear and oral cavity respectively. Angular, normal, superior labial vein and inferior palpebral veins are the structures present adjacent to the area of manipulation of *Shringataka Marma*. (*Sushruta*)

Thus the medicine instilled through nose drains directly to ventricles of brain and gets circulated throughout via *Shringataka Marma*.

Vagus nerve stimulation VNS

(Ref. Reference centre for Refractory epilepsy

www.elsevier.com/locate/yseiz

Add on treatment for pharmacoresistant epilepsy. VNS demonstration lies in a better understanding of the mechanism of memory.

The reasons to assure the effect of VNS on cognitive functions may be thought of as follows-

The nucleus of the solitary tract (NST) in the brain stem is the main relay station for afferent vagal nerve fibres. This nucleus has widespread projections to numerous areas in the forebrain as well as the brain stem, including areas involved in learning and memory formation (amygdala and hippocampus). Stimulation of the vagus nerve induces changes in the electro physiological and metabolic profile of these brain structures.

It is believed that substances that stimulate learning and memory exert their effect through activation of

peripheral receptors that send neural information to the central nervous system through the vagus nerve.

Diet: It is important to note that –

*Ahara Shuddhou Satwa Shuddhii,
Satwashuddhou Dhruva Smritih /*

The Somatic humors are assigned some psychological functions also the *Sanchaya / Poshana* is through the food we consume. Individual *Dosha* dominance makes the features of disease dominant with that respective *Dosha* therefore it is essential to make note of diet which takes care of these dominant *Doshas* also. To attain the clarity in *Smriti* which is affected in *Apasmara* it is essential to follow appropriate diet also.

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Corresponding Author

Dr.Mamata Bhagwat

Professor and Head, Department of Kayachikitsa, Bapuji Ayurvedic Medical College and Hospital, Challakere Karnataka. – 250782
Email: mamta.bhagwat@gmail.com

