

CONCEPT OF POST-STROKE DEPRESSION IN AYURVEDA: A SCIENTIFIC REVIEW

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ABSTRACT

A complex picture is emerging in which the sequence of causality seems to spiral on itself as the medical science is learning more about the interaction between depression and cerebrovascular disease (CVD). Progressive brain damage, impaired cognition, depression, dementia, and cardiac disorders, all seem to be responsible to lead to one or another. Depression is an important poststroke complication, which influence on persons quality of life, because it is associated with general disability and mortality. In Ayurveda the word stroke can be interrelated with pakshaghata. The person who had a Pakshaghata may have to come to terms with the loss of many of their hopes and plans

for the future, as well as having to adapt to a changed role in the family, and possibly the loss of a career. As many of us value ourselves through everyday activities like bathing etc., the impact of a pakshagata can result in loss of confidence and lowered feelings of self-worth.

KEYWORDS: Depression, Pakshaghata, Stroke, Vatavyadhi, Mana, Avasada.

INTRODUCTION

A stroke refers to a medical crisis that can cause everlasting neurological harm, several medical complications or even death. It is a major health trouble in all countries worldwide and it imposes a significant health and economic burden. Stroke is a condition in which part of the brain is all of a sudden damaged or even permanently damaged. It is the most common and serious neurological disorder in the world and accounts for half of all acute

hospitalizations for neurological disease. Depression occurs in around one third of stroke survivors at any one time and is associated with poor functional outcomes and higher mortality. Ayurveda is one of the most ancient systems of medicine and it is the science of life, health and cure based on eternal laws of nature. According to Ayurveda mental health is a state of sensorial, mental and spiritual wellbeing. A wide range of psychiatric conditions have been described in Ayurveda. Primary psychological conditions caused merely by manasdosha, i.e. Rajas and Tama. Kama, Krodha, Moha, Shoka, Irshya, Vishada, etc. moreover, other psychiatric conditions are also described in the classical literature caused by mixed Samprapti including both Sharirika and Manasik dosha. Treatment and rehabilitation of post stroke patients presents as an on-going challenge for society and nursing today. Potentially, this will be a greater challenge in the future.

Psychosomatic Concept in Ayurveda

The Manas is the seat of emotional pressure of different kinds. Manasa dosas are Rajas and Tamas, Sattva is not considered as Dosa, because it is a factor of equipoise, transparency and knowledge. On the other side of the soma, the tridosas, are when in state of unbalanced leads ill health. An imbalance of the equilibrium of both the Manasika (Psychic) and Saririka (Somatic) dosas are caused by three fundamental causes of diseases. According to Acharya charak vimansthan, these dosas (Shareera & Manasa) interact between each other and cause psychosomatic disease like, Kama jwara, Bhayaj & shokaj Atisara etc. Acharya Charak also described in sutra sthan that the person suffering from prolonged stress, anxiety depression, can aggravates the disease condition and physician unable to treat somatic disease without treating the Manas disturbance.^[1]

Concept of Avasada/Vishada (~Depression) and Pakshaghata in Ayurveda

Ayurveda the ancient science of life deals with the maintenance of positive health of healthy individual and management of disease of diseased. It has been said that etiological factors of diseases are mainly of three kind viz. (1) Iddriyarth - Atiyoga, Ayoga, Mithyayoga, Karma – Atiyoga, Ayoga, Mithyayoga, Kala - Atiyoga, Ayoga, Mithyayoga (2), Pragyaparadha (3) Parinama. Any disturbance in the fundamental configuration of Dhatus which may lead to their malfunctioning is called as Vikara, Vyadhi or disease and Pakshaghata and Avasada both is Vata Vikara.^[2] (Ch. Su. 9/4) Acharya Charaka has mentioned Nanatmaja Vyadhi of Vata, Pitta and Kapha but a separate chapter has been contributed to only Vata vyadhi. Acharya Vagbhata has said Vata vyadhi as “Maharoga”. This shows that the Acharya have given

importance to Vata as it dominates in the function and is supposed to be the leader of the remaining two Doshas.

There are no direct descriptions in classics in the context of Pakshaghata regarding the emotional changes, or a condition which can be correlated to PSD. There is description of the disease Pakshaghata and Avasada under eighty Nanatmaja Vata Vikaras.³ Pakshaghata is considered among the ailments of Madhyama Roga Marga, i.e., Marma-Asthi-Sandhi Marga.^[4] Detailed description of the disease has been given as Pakshavadha.^[5] Acharya Sushruta has highlighted Vata Vyadhi among Ashta Mahagadas^[6] and the involvement of Urdhvagami, Adhogami and Tiryag Dhamanis in the pathogenesis of Pakshaghata with cardinal symptoms like Anyatara Pakshahanana and Sandhi Bandhana Vimoksha. In aetiopathogenesis, clinical features and prognosis of Pakshaghata are described.^[7] Treatment of Pakshaghata is described in Maha Vata Vyadhi Adhyaya of Chikitsa Sthana.^[8] Acharya Vagbhata has explained the general Nidana of Vata Vyadhi, signs, symptoms and prognosis of Pakshaghata.^[9] Line of treatment is same as that given by Charaka with the only difference that Sneha is mentioned instead of Swedana.^[9]

In the Ayurvedic literature Vishada and Avasada are two conditions which are closely similar to depression. Charaka quotes “VishadoRogavardhananam” Agrya: means Vishada is the leading factor to exacerbate the disease condition. This is the first principle regarding Psycho-neuro-immunology in Ayurveda. Although Samhitakara like Charaka, Sushruta and Vagbhata highlighted the topic at various places, commentators like Chakrapanidatta; Dallhana elaborated it and had given specific definitions which match to the modern scientific views.

1) *“Asiddhibhayat dvividheshu karmeshu apravritti Vishada”*^[10]

Dallhana defines Vishada as a condition originated from fear of failure resulting into inability of mind and body to function appropriately. There is significant reduction in both the activities.

2) *“Vishado anushtheyoatmana ashaktatajananam”*^[11]

In this definition, Chakrapani comments that Vishada is a feeling of incompetence to act upon a desired work. This refers to the loss of self confidence in the disorder leading the person to triad of worthlessness, hopelessness and helplessness.

3) *“Vak kay chitta avasadah vishadah”*^[12]

This means Vishada comprises a condition Avasada i.e. lassitude of speech, body and mind. This definition clearly indicates the feelings of unwillingness to respond or retardation of physical and mental activities.

4) “*Vishada Sarvada manah khedah*”^[13] and “*Vishannatvam dukkhkhitatvam*”^[14]

Vishada is a constant feeling of sadness and inappropriate guilt which are the important signs of depression as it is stated by Gangadhara and Arunadatta, commentators of Charaka Samhita and Ashtanga Hridaya respectively.

5) “*Avasadsa Chitta dehayoh glani*”^[15]

The other condition Avasada is defined as lassitude of mind and body in their functions. Modern science defines depression as a psychiatric disorder characterized by an incapability to concentrate, sleeplessness, loss of appetite, anhedonia, feelings of extreme sadness, guilt, helplessness and hopelessness, and thoughts of death. It is also called ‘clinical depression’.^[16] A depressive disorder is an illness that involves the body, mood, and thoughts. It affects the way a person eats and sleeps, the way one feels about oneself, and the way one thinks about things.^[17] Clinical depression is a common psychiatric disorder, characterized by a persistent lowering of mood, loss of interest in usual activities and diminished ability to experience pleasure.^[18]

Physiological and pathological aspect of vata

Pakshaghata and Avasada both have been listed under eighty Nanatmaj Vata Vikaras. All Acharyas have emphasized in their Samhitas that vata is the predominant dosha in the manifestation of these disease. Even though the association of pitta and kapha may be found, but the main causative factor is vata. Tridosha siddhanta is one of the major basic principles of Ayurveda. Amongst three basic humours of the body-vata, pitta and kapha, vata is the chief humour and also governs the other two doshas. This means that the natural attributes of vata are motion, sensation and power of imparting that motion and sensation to other bodies along with initiation and enthusiasm. As described in charaka samhita mana is under controll of vata, if vata is vitiated than both body and mind also get disturb. So from the text it is clear to be involvement of vata in pakshaghata and avsada.

Inter-Relationship between Hridaya, Mana, Shira & Mastishka

In Atharvaveda, Hridya and Shir have not been described separately. Here vayu is said to be sited in the upper portion of the body and regulator of everything. In Upnishadic literature and in Gita, Hridaya has been recognized as the main seat of consciousness. According to Parashara, Hridaya is the organ of Nadis. Kashyapa mentions that all Indriyas together with mana emerge from Hridaya (Ka.Chi. 8/6). According to Acharya Charaka if Hridaya is injured unconsciousness occurs and if it is destroyed death occurs (Ch. Sha. 30/5). Hence, here the description of Hridya resembles that of Brain. Mana is Ubhayatmaka and controller of all Indriyas. Shir is said to be the seat of all Indriyas (Ch. Su. 17/12). Mastishka is also known as Mastulunga (Ch. Si. 9/10), and Mustulunga is described as Ghritakaram, Mastishka majja (Su.Sha. 10/42-Dalhana). Mastishka is described as shirastha majja (Ch. Si. 9/79-Chakarapani). Charaka mentions that Shiromarmabhighata leads to cheshtanasha, sangyanasha, etc. (Ch. Si.9/6). From the above description we can say that, in this context, Shir or Mana or Hridaya are used as synonyms and pertain to Mastishka (brain-cerebrum). While describing the treatment of Pakshaghata, Acharya Sushruta has specified the use of Mastishkyashiro basti (Su. Chi. 5/19). Panani opines Mastishkya as useful for Mastishka (brain). Hence Akarmanyata/Cheshtahani encountered in Pakshaghata is related to disturbance of Mastishka. Thus we can say that Mastishka is the prime element responsible for normal motor functioning.

Causes of Depression after Post-Stroke

The person who had a Pakshaghata may have to come to terms with the loss of many of their hopes and plans for the future, as well as having to adapt to a changed role in the family, and possibly the loss of a career. As many of us value ourselves through everyday activities like bathing, washing, eating, grooming etc., the impact of a pakshagata can result in loss of confidence and lowered feelings of self-worth in his activities. Sometimes the stroke directly damages the part of the brain which generates and controls how we think, feel and behave. It may also be the result of the emotional impact of suffering a serious illness. Being isolated can cause low mood, so having somebody to talk to is important in reducing the likelihood of depression. Stroke happens very suddenly and it can take some time to come to terms with the shock of what has happened. Many people feel frightened, anxious, frustrated or angry about what has happened to them. These feelings are normal and usually fade over time, but in some people they develop into depression. Depression often sets in once the initial period of recovery is over, and the person becomes aware of how their lasting disability may affect their everyday life.

*“Upadhaa hi paro heturDukha duhkaashrayapradah
Tyaagah sarvopadhaanaam ca sarva Dukhavyapohakah”^[19]*

Desires are said to be the very basis of our behavior that are associated with the survival of the organism and species. If in normal limits, and when satisfied, help in positive adjustment and thereby in the progress of the individual. But when these desires are not fulfilled or go beyond the psychological makeup of an individual and his socio-cultural environment they lead to emotional upsets, mal-adjustment making the individual susceptible for psychiatric illness or may even precipitate it. Hence Charaka Samhita points Upadhaa as the root cause for all Miseries/Dukha. In all these descriptions it is the “Dukha” factor that is acting as “Nidana” for the manifestation of the disease process. As it will be seen later, it is this “Dukha” that is predisposing as well as precipitating the illness.

Concept of Hinasatva

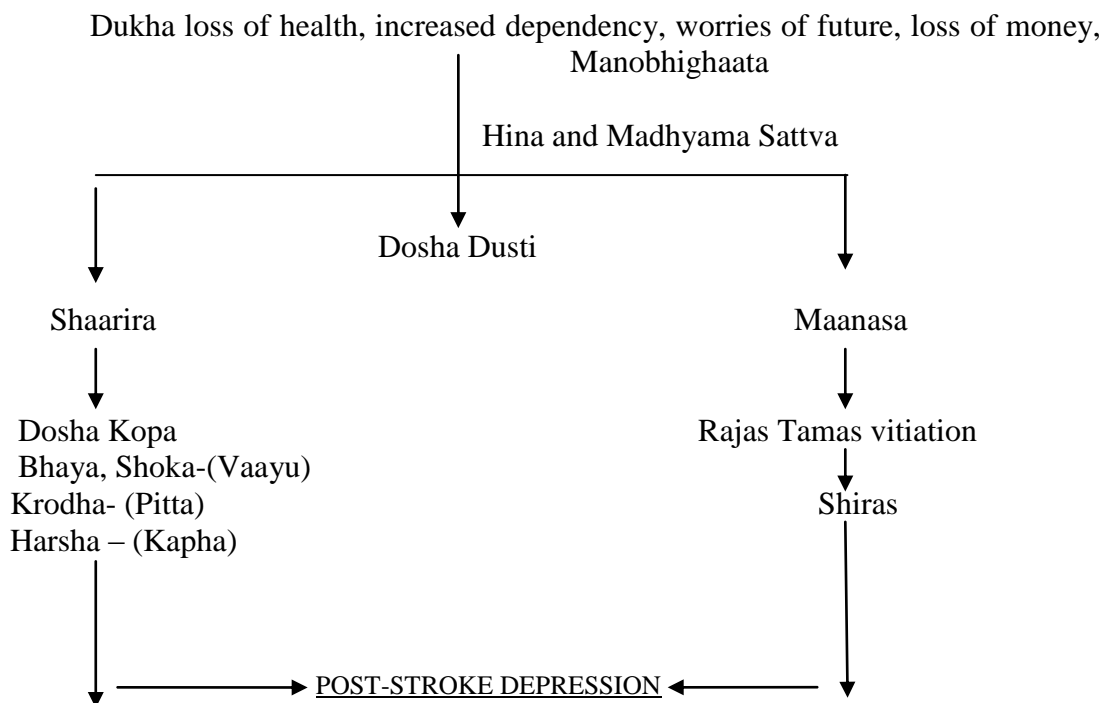
The characteristics mentioned in Charaka Samhita are that the Hina Satva persons, neither by themselves nor through others can sustain their mental strength and even if possess big physique; they cannot tolerate even mild pain. They are susceptible to, delusion, fear, grief, greed and ego and further said that they fall easy victims to depression, madness or lead to death.^[20] So under stressful situations a person of Hina Satva is more probable to exhibit abnormal behaviour patterns and this Hina Satva is forming as a predisposing personality to develop psychiatric illness. Many mental disorders are believed to develop as the result of some kind of stressor operating on a person who has a diathesis for the type of disorder that emerges. So Hinasatva can be understood as the diathesis/vulnerability of an individual that predisposes to develop mental illness.

Role of ‘Khavaigunya

Khavaigunya is considered as a contributory factor in the development of illness, it even applies in case of Manorogas. A person with Pravara Satva is endowed with a healthy Manovahasrotas; that of Madhyama Satva is not superior, but without a Vaigunya; while in Hina Satva the khavaigunya of the ManovahaSrotas, inborn and or attained makes him liable for mental illness. To conclude, Sattva has genetic endowment as it is inherited at the time of conception and this part of the nature gets nurtured in the womb especially by the influence of “Satva Vaisheshika Kara Bhaavas” and also by the influence of “Dharma” during infancy, childhood and adolescence. If the moulding is ideal then the Bala of that satva will be

“Pravara”, if normal then Madhyama whereas if abnormal then leads to Khavaigunya of Manovaha Srotas resulting in Hina Satva. Hence Hina Satva can be understood as Khavaigunya and also as diathesis/vulnerability of an individual to develop mental disorder. This concept of Hina Satva-diathesis is the underlined factor in the pathogenesis of PSD.

Etiopathogenesis Pakshaghatapaschata Avasada



Raja and Tama are main causative factors of mental illness.^[21] Tama cannot manifest its action without Raja. Prajnaparadha, Parinama and Asatmyendriyarthasamyoga vitiate Raja and Tama Doshas because these Nidanas have a nature of Dosha Prakopa.^[22] Raja and Tama have Chala and Guru Property's respectively^[23-26] and due to which actions of Manas are also influenced. Vata is a chief causative factor of PSD, Without Vataprakopa mind cannot be disturbed. Vata is the necessary cause for PSD especially Prana, Udana and Vyana Vayu. Due to their etiological factors Prana, Udana and Vyana are vitiated.^[27] This further causes Indriyopaghata due to Prana, Manobhramsha due to Udana and Utsahabhramsha, Chittopaplava due to Vyana Vayu. There are also a variety of somatic symptoms like palpitation, giddiness and choking etc. are manifested due to Vata Prakopa^[27] Pitta especially Sadhaka Pitta is also responsible for manifestation of PSD. Pittapropaka Nidana mentioned in texts, vitiates Sadhaka Pitta which causes Buddhi, Medhanasha i.e. loss of intellectual faculty. Pitta is also responsible for the somatic symptoms like giddiness, abdominal discomfort etc^[27] Kapha especially Tarpaka Kapha is also responsible factor for manifestation of PSD. Kapha Prakopaka Nidana provokes Tarpaka Kapha, which leads to

mal nourishment of Indriyas as well as Ashrita of Manas. It causes Indriyanasha or Indriyavikriti. Kapha also causes different somatic manifestations such as discomfort in abdomen etc. found in PSD.

DISCUSSION

Study of Ayurvedic literature reveals that, ancient Ayurveda Acharya has described the conditions resembling to depression in the form of Vishada, Avasada, etc. Vishada has also been described among one of the 80 Vata Nanatamajavikara, and also as symptom of Vataja Jwara. Shoka is also a similar term to depression which describes the state of Manodainyata (Cha. Vi. 4/8). Vishada has also been included under the category of Manas Vyadhi during the classification of diseases by Sushruta (Su. Su. 1/33). The most important symptoms of Vishada and Awasada are, Dukkhatvam (Feeling of sadness or depressed mood), Atmanoasaktata (loss of Self-confidence), Nidravaishamya (Sleep disturbances), Dainya (Misery and helplessness), Daurbalya (Weakness), Nairashya (Hopelessness), Smritihassa (Decreased memory), Apraharsha (Anhedonia or lack of pleasure), Shoka (Excess grief), ShariraSada (lack of energy), Kampa (Tremors), etc. According to Ayurvedic concepts Vata Dosha is predominant cause responsible for the various disorders in body eg. Pakshaghata and Awasada. Vata being the important dosha, regulating neuro psychological activities, the changes is more marked into the nervous system, in the form of neurological and the psychological changes in the form of various type of disorders and dysfunctions. All this atypical presentation reflects thevaigunyaataof Vata Dosha. The most important sign of depression in the form of psychomotor retardation and sadness of mood are usually observed in post-stroke depression. In above description it is clear that Avasada is caused by dusti of vata and disturbance of mind.

CONCLUSION

In the Ayurvedic literature Vishada and Avasada are two conditions which are closely similar to depression. Charaka quotes “VishadoRogavardhananam” Agrya:’ means Vishada is the foremost factor to worsen the disease condition. This is the first principle regarding Psycho-neuro-immunology in Ayurveda. In Pakshaghata already there will be vitiation of Vata along with Rasa, Rakta, Mamsa, Meda, Asti and Majja due to which the patient will be in HinaSatva, with that the stressors like the dependency, loss of health, job, and wealth will lead to the condition PSD. Vata is given more importance by denoting the characters of Vayu are life and vitality. Vayu is the supporter of all living beings; Vayu is present in whole

universe. By subsidizing the Vata, all Vikara located in the other parts of the body also become allayed just as by the eradication of the roots of a plant, the stem, the branches, sprouts.

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