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Dementia and Its Concept in Ayurveda-A Review

Rashmi Joshi^{1*}, Bhanupriya Kaushik², Deepti Negi³ and Mayank Bhatkoti⁴

^{1,2,4}Department of Panchakarma, Gurukul Campus, Uttarakhand Ayurved University, Gurukul Campus, Haridwa, India

³Department of Agadtantra, Rishikul campus, Uttarakhand Ayurved University, Gurukul Campus, Haridwa, India

ABSTRACT

Dementia is a condition in which there is some loss of previously acquired intellectual functions. Brain cells destruction is mostly occur in old age which is named as Alzheimer's disease. The other causative factors for AD is metabolic disorders, infections and toxins. In Dementia there is impaired judgement, difficulty in making decision, memory loss, cognition, language disturbances, aphasia, repetition, calculations. In modern science, only symptomatic management is there which also have some serious adverse effect. *Ayurveda* considers Dementia as a *Vatik* disorder which later leads into *Smritibuddhihrass*. Ayurveda has mentioned some *Medhyarasayana*, single herbal drugs, *Panchkarma* procedures, *Yoga* and *Pranayaam* which not only act on brain cells but also on whole nervous system. This review article helps to know about dementia in both modern and *Ayurvedic* aspects, respectively

KEYWORDS

Dementia, Cognitive disease, Alzheimer's disease, *Ayurvedic* Treatment



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INTRODUCTION

Dementia is known as a senile condition in which there is a loss of previously acquired intellectual function in the lack of impairment of arousal¹. In the old age most commonly found dementia is Alzheimer disease. In Dementia there is difficulty in memorize day to day activity, switch personality, altered behaviour and other cognitive dysfunctions². Many types of dementia consisting Alzheimer dementia (AD), Vascular dementia, Pick's disease and dementia due to diseases such as stroke, AIDS, and multiple sclerosis³. Among these, Alzheimer Dementia (AD) mostly found in western countries. Alzheimer Dementia (AD) mostly found in western countries. Approximately 10%-12% person over 70 year of age have increased loss of memory of which more than half is suspected to have AD. In AD there is progressive memory loss. When it is pathologically assessed there is cerebral cortex degeneration while ventricular system extends⁴. In Dementia there is impaired judgement, difficulty in making decisions, memory loss, cognition, language disturbances, aphasia, impairment in influence, repetition, calculations. Marked difficulties in judgement, orientation and dependence on others for daily activities develop later. Euphoria,

elation or aggressive behaviour are common⁵.

CAUSES AND RISK FACTORS The causative factors for dementia consist of old age, cognitive and physical inactivity, neurodegenerative, genetic and environmental factors.

Other etiological elements for dementia consist of cardiovascular and cerebrovascular troubles, excessive alcohol intake, stress and brain injury⁶. According to *Ayurvedic* literature, *Aswabhavika Kshaya* is described under the description titled as *Gramya Ahara-Vihara* which state that, regular use of these nidana result in various kind of diseases including smritibuddhihrass (Dementia).

ETIOPATHOGENESIS

AYURVEDIC ASPECTS In *Ayurvedic* literature, it is necessary to understand the relation of *Mana*, *Buddhi*, *Dhriti* and *Smriti* with each other in context of etiogenesis of Dementia.

CONCEPT OF MANA IN AYURVEDA

The concept of *mana* is described in *Ayurvedic literature*. *Ayurveda* states that *mana* is *antahkaran* while in other places *mana*, *buddhi* and *ahamkara* are described under *trividhaantahkarana*. Thus, *Ayurvedic* concept of *mana* includes both *buddhi* and *ahamkara*.

CONCEPT OF BUDDHI



Buddhi is the power of knowledge that decide difference between good and bad (*Hita* or *Ahita* of an object). According to the *Madhav Nidan* *Buddhi* is the first *element* which is responsible for the development of *indriyas* and *mana*. *Buddhi* has *Trigunatmaka Prakriti* i.e. *Sattva*, *Rajas* and *Tamas*. In *Charaka Samhita* *Buddhi* is also named as *prajna*. *Prajna* has been described to be of three types *Dhee*, *Dhriti* and *Smriti*⁸. In *Charaka Samhita Sharira Sthana* in *Prajnaparadha*, '*Dhee*' has been used as a synonym of '*Buddhi*'. *Charaka* has coined "*Samam Buddhihi Pasyati*", on this *Chakrapani* commentary tell that knowledge of an object is the sense of "as it is" i.e. "*Yatharthanubhava*" or perception of true knowledge is *Dhee*.

CONCEPT OF *DHRITI*

Prajna has one another type known as *Dhriti*. In *Charaka Sharir Sthana*, it is said that *Dhriti* is the controlling power which prevents the *mana* from indulging in *hita-ahit*, It is stated in *samhita* as "*Dhriti Hi Niyamatmika*"⁹. This is the importance of association of *Dhriti* with *mana*. Control over the mind is possible only on the basis of retained experiences whether that object is useful or not".

CONCEPT OF *SMRITI*

In dementia, loss of memory is the main feature. The main functions of *Buddhi* is to identify or differentiate the *Hita-ahita* and

it is possible only if the person has already experienced that earlier. *Smriti* is an important part of mental functions and in *Ayurveda* this quality of *mana* is attributed to *Atma*. In *Charak sharir sthan* it is mentioned that there is permanent relation of *mana* with *atma* (soul) "*Nityanubandhmansa*"¹⁰. *Smriti* is the capacity of mind to recollect things through experiences. Through *Smriti* these experiences are expressed at a proper time when it is provoked by eight factors which are responsible for retrieval of the acquired knowledge. They are *Nimittat*, *Rupagrahanat*, *Sadrishyat*, *Saviparyayat*, *Sattvanubandhat*, *Abhyasa*, *Jnanayogat* (*Tattvajnanayoga*), *Punah Shrutat*¹¹. *Sattvanubandhat* means Concentration of mind which is important factor for *Smriti*. Hence, recognition of any knowledge cannot be achieved by *Atma* (Soul) without *Sattvanubandha*. In *Charak Samhita sutra sthan* it is mentioned that when *Indriya* are associated with *Manas* they receives *Arthas* - "*Manah Pura Sarani Indriyanartha Grahana Samarthani Bhavanti*"¹². So persistence to realization, i.e. *Nischayatmaka Buddhi* play the first part while *karmendriyas* play the second part of the *manas* physiology. *Manas* is *Ubhayatmaka Indriya*, so it connects *Jnanendriya* and *Karmendriya* with each



other. After persistence of the knowledge by *Jnanendriyas*, *Nischayatmaka Buddhi* plays essential required action which is co-ordinated by *manas*. Further actions are carried out by *Karmendriyas*, hence it can be said from above description that *manas* is the main factor in the origin of *Prajnya* through which all the activities are being done. However, in old age *Vatavaigunya* naturally occurs while on other hand *Manas* itself is controlled by *Vata* so it also affects the functions of *Manas*. In *Charak Samhita* it is clearly mentioned "*Laksanam Manaso Jnanasyabhaobhava Eva Cha*"¹³. Thus, any amendment in the *Sattvanubandha* process will definitely cause altered, false or insufficient knowledge.

TREATMENT There is not any specific treatment is available in modern as well as in ayurvedic system. In modern science, Newer drugs are continually introduced with little efficacy. Piracetam are primarily used medicine for improving mood, memory and behaviour changes, but the resulting chemo phobia associated with these agents has made their use limited so only hope is traditional medicine in treatment of cognitive disorders:

AYURVEDIC MANAGEMENT-In Dementia, preventive aspect is required as there is practically no treatment available. *Sadvritta*, *Aachar Rasayana*, *Medhya Rasayana*, *Panchkarma* procedures

(*Nasya*, *Basti*, *Snehan*), *Yoga* and *Pranayama*, *Ayurvedic Medicines* can be used in Dementia.

SADVRITTA AND AACHAR RASAYANA- For prevention there is *Sadvritta* and *Aachar Rasayana* mentioned in *Ayurvedic* literature. As in dementia there is gradually memory loss and cognition with loss of coordination of five sense, uses of *Sadvritta* seems helpful by which *Arogya* (health) and *Indriyavijay* can be achieved and by following *Aachar Rasayana* there is prevention from excessive or negative uses of five sense which usually causative factors for manifestation of this disease.

RASAYANA *Ayurveda* mentioned some dietary and therapeutic procedure for rejuvenating whole body organs and there functions. This is known as "*Rasayna Chikitsa*(rejuvenation therapy). In this context *Medhya Rasayana* plays an important role as it works on brain and whole nervous system. *Medhya* plants such as *Brahmi*, *Jyotismati*, *Aindri*, *Guduchi*, *Mandookparni*, *Mulethi* has their *Rasayana* effect on this disease.

PANCHKARMA PROCEDURES *Panchkarma* is purification procedure of *Ayurveda*. It consist five major procedures out of which *NASYA* and *BASTI* seems very effective.



NASYA- Nose is considered as direct path to the head “*Nasa Hi SirsoDward*”. Any medication administered through nose, can be easily reached into head, improve oxygenation and hence, improve the functioning of the brain. *Nasya* is given with medicated oils or herbal powder.

BASTI- In *Ayurvedic* management, *Basti* is mainly used because Dementia is *Vatik* disorder and *Basti* is best for *Vata disorders*. *Anuvasan basti*, *Niruh basti*, *Matra basti* can be used in Dementia.

SNEHAN As mentioned earlier, dementia is due to the *Vata Dosha* imbalance, so its management through *Snehan* is useful because *Snehan* has opposite properties in compare to *Vata Dosha*. *Snehan* has rejuvenating and nutritive properties on *Mastishka* (brain), hence *Ghrita* especially *Goghrita* / *Puranghrita* should be used internally and externally. It can also be used for *Abhyang*, *sirodhara*, *shirobasti*.

YOGA AND PRANAYAMA *Pranayam* has three parts consisting inhalation, retention & exhalation. Deep and conscious breathing exercise helps to achieve health and proper physical and mental functioning. *Jalneti* to prevent and cure chronic cold and sinusitis which is associated with dementia. *Dhaukani Pranayama* is breathing practice in which an instrument is used to blow air on a fire with pressure. *Kapalbhati pranayama*

involves inhaling towards the head region in a quick way.

AYURVEDIC DRUGS-*Brahmi*, *Aswagandha*, *Kapikachchu* are very helpful in dementia and may be useful to control the advancement of disease when started in starting condition. They also lead to significant recovery of cognitive functions in many patients. Some important drugs in dementia are *medhya rasayanas* i.e; , *Mandukparni*, *guduchi*, *madhuyasthi*, *Shankhpushpi* etc and *Vacha*, *Shatavari*, *Amalaki*, *Tagara*, *Jatamansi*, *Shilajatu* are useful in appropriate doses .

DISCUSSION

Dementia has evolved as one of the major burning health issues of present era due to unhealthy life style adaptation. Almost 4.1 million people in India are affected from this disease. As it is being the major geriatric problem of India it is calculated that it will be a burden for India in future. The functions of *Manas* predominantly governed by *Vata Dosa*. In old age, *Vata Dosha* is vitiated by different etiological factors represents as various symptoms related to disorders of *Dhee*, *Dhriti* and *Smriti* i.e. forgetfulness, disorientation, aphasia, anxiety, depression, impaired recognition etc. Dementia occur due to the neuronal loss and the location of affected



regions. These two factors combined to cause the disease. In dementia there is loss of acetylcholinergic and other neurotransmitter's activity. In AD, cholinergic neurons loss may cause the memory deterioration while in non-AD dementia's patient, the loss of serotonin and glutamine neurons cause primarily behavioural symptoms, leaving memory relatively spared.

CONCLUSION

As per *Ayurvedic* consideration Dementia is understand as a *Yapyavyadhi* of its pathogenesis. Early detection and early management is necessary for prevention as well as progression of the disease. *Sadvritta*, *Aachar Rasayana*, *Medhyarasayana*, *Panchkarma* therapy, *Yoga*, *Pranayama* and herbal drugs seems very effective and helps to improve the lifespan. These *Ayurvedic* medicinal plants reduce the aging of brain and induce the memory enhancing and antistress effects which helpful for neural tissue regeneration. It also have antioxidant, nutritional, antiamyloidogenic and immune-supportive effects in the human body. *Ayurvedic* management of dementia is very effective if used judiciously, which still needed for further researches.



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