

Management of Cognitive Dysfunctions through Ayurveda – Challenges and Opportunities for CAM researchers

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Editorial

Ayurveda is an ancient system of Indian medicine and has been in practice since 12th Century BC. The objective of Ayurveda is to accomplish physical, mental, social and spiritual wellness by employing preventive, health promoting and holistic approach towards life [1,2]. Vata, pitta and kapha are the major dimensions (energy) regulating the entire functioning of the human body. Vata is the energy which strengthens the intellectual ability, respiration and enhances the functioning of sensory organs. Pitta regulates digestion, body temperature, intelligence and memory. Tarpak kafa provides nutrition to the sensory organs and thus maintains the nervous tissues.

Cognitive disorders are mental disorders characterized by impaired cognitive abilities and daily functioning in which biological causation is either known or presumed. Cognitive disorders involve disturbance in thinking or memory that represent a marked change from the individual's prior level of functioning [3]. Cure of cognitive disorders such as amnesia, and Alzheimer's disease is a big challenge to medical practitioners and researchers.

Nootropic drugs viz., piracetam, and choline esterase inhibitors like Donepezil are currently prescribed to improve memory, mood and behavior, but the resulting side effects are critical issues. As the allopathic system of medicine is yet to give a radical cure for dementia of Alzheimer's type, it is a challenge to the researchers to investigate the usefulness of drugs from traditional and complementary medicines [4,5].

As per Ayurveda, Alzheimer's disease is caused due to an imbalance of vata, pitta and kapha [6]. Medhya (intellect promoting) drugs viz. *Convolvulus pluricaulis*, *Centella asiatica*, *Bacopa monnieri*, *Acorus calamus* and *Celastrus paniculatus*, *Mentha piperita* [7] etc., are beneficial in management of cognitive disorders [8].

Rasayanas are the ayurvedic preparations which help to improve resistance against infections and by maintaining the equilibrium of vata, pitta and kapha. They are useful to improve memory, intelligence and promote youthfulness, good lusture, complexion and efficiency [9]. Various rasayana drugs like *Withania somnifera*, *Asparagus racemosus* and *Tinospora cordifolia*, *Desmodim gangeticum* have proven their therapeutic worth [10,11]. Various traditional approaches practised in India for prevention and treatment of diseases so as to maintain/restore health include Ayurveda, yoga, unani, siddha, homeopathy, naturopathy and complimentary systems. Ayurvedic system is based on three fundamental principles or doshas called vata, pitta and kapha. These doshas govern all cellular processes responsible for healthy life. Vata governs all movements and activities; pitta governs heat and energy levels and regulates various transformations. Kapha controls growth and, structural modifications. Their imbalance leads to metabolic disorders. For example, when, vata is not in balance, the mind becomes hyperactive, leads to circulatory disorders, poor neurotransmission, irregular elimination and uncomfortable menses. If pitta is disturbed, we observe excessive acidity resulting in heartburn, peptic ulcers, hot temper and inflammations. Whereas, if kapha gets out of balance, the result is chronic congestion, weight gain, high cholesterol levels and acne [12,13]. Despite of various advancements in the areas of medical research allopathic is yet to provide a permanent remedy for the

cognitive disorders especially for dementia [14]. Compared to synthetic drugs, formulations derived from medicinal plants (taking clues from ayurveda) have been very useful in treatment of amnesia which is a preliminary symptom of these diseases [15]. Hence, its beneficial that the researchers, Ayurvedic and practitioners of alternative systems of medicines to find novel remedies for these challenges, however, it is worthwhile to adopt latest research methodologies.

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