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Herbal medicines: Potential benefits against memory disorders

Natural resources have been a mainstay to provide the leads for therapeutic remedies. The use of herbs is a time honored approach to strengthening the body and treating disease. There are several products based on natural resources are in use or have potential to provide benefit to patients of memory disorders including dementia. Ginkgo (Ginkgo biloba) shows the best evidence for treating early Alzheimer's disease and vascular dementia. Huperzine A, a chemical made from the plant Huperzia serrata, may improve memory in both vascular and Alzheimer's dementia, according to several studies in China. However, more studies are needed to know for sure. Bacopa (Bacopa monnieri) leaf extract, called brahmi, is used in Ayurvedic or Indian medicine to improve brain function and learning. CSIR-CDRI developed the bacosides enriched (55% bacosides) standardized extract of Bacopa (memory sure, lumen, India). Clinical studies with Bacopa [BESEB] reported improve cognition in healthy people and improvement in age associated memory impairment (AAMI). Gugulipid, an ethyl acetate extract of the resin of plant Commiphora whighitii and an established hypolipidemic agent used in clinical practice was investigated for its potential as anti-dementia drug. The major constituent of gugulipid is guggulsterone [4, 17 (20) – pregnadiene - 3, 16-dione]. The study demonstrated that gugulipid has significant protective affect against streptozotocin induced memory deficits model of dementia that can be attributed to anti-oxidant and anti-AChE activity of gugulipid. These observations suggest gugulipid as a potential anti-dementia drug. (CSIR-CDRI, Lucknow has obtained US patent (No. 6896901) and European patent (No. 1224938) for use of gugulipid as cognitive enhancer. The herbal preparations may be useful in amelioration memory impairment and prevention of dementia as a non specific neuroprotective agent against neuronal degeneration.

Biography

Chandishwar Nath, Chief Scientist, CSIR- Central Drug Research Institute, Lucknow, obtained MD (Pharmacology) in 1978 from K. G. Medical College, Lucknow. He was Post Doctoral Associate in JH Miller Health Center, University of Florida, USA (1984-86) and Visiting Scientist- Medical Center, University of Arizona, USA (1991-92), Rudolf Magnus Institute of Neurosciences, The Netherlands (2003) and Institute of Clinical Pharmacology & Toxicology, Charite Medical University, Berlin (2010). He is a Fellow of National Academy of Medical Sciences (FAMS), Indian Pharmacological Society and Indian Academy of Neurosciences. He was awarded UVNAS PRIZE (1982), Prof Achari Oration (2006) and ICMR- Dr Prasad Oration (2007). He is an expert member of Advisory Committee for IND, Drug Controller General of India, Ministry of Health, Govt. of India and Research Council of CSIR-Indian Institute of Toxicological Research (IITR). His research group is currently working on molecular neuropharmacological aspects of memory functions, and conducted pioneer studies on Acetylcholinesterase enzyme and brain insulin receptors. His group is also involved in development of anti-dementia drugs of herbal origin. He has 223 research publications and 9 International patents.