

An Overview Pharmacological Approaches and Herbal Intervention for Alzheimer Disease

Sakshi Parjane¹, Vikas Nighot², Tejas Maharse³, Avishkar Pawar⁴, Akshada Suryawanshi⁵

Final Year B. Pharmacy Students, Department of Pharmaceutical Quality Assurance^{1,2,3,4}

Guide, Department of Pharmaceutical Quality Assurance⁵

Shri Swami Samarth Institute of Pharmacy, Malwadi (Bota), MH, India

*Corresponding author: Ms. Parjane Sakshi Rajesh

sakshiparjane67@gmail.com

Abstract: *The most prevalent kind of dementia, Alzheimer's disease (AD), is a progressive neurodegenerative illness that has a major impact on memory and cognitive function. As the condition advances to more advanced stages, it results in behavioral issues like aggression, depression, and verbal and visuospatial impairments. Alzheimer's has no known cure, however symptomatic treatment helps with memory loss and other symptoms. Natural goods provide a therapeutic alternative for many ailments, effectively halting their progression, and alleviating the symptoms of many different types of diseases. Traditionally, memory diseases including dementia and amnesia have been treated with medicinal plants and plant derivatives. Although there is little scientific backing for the claims made in numerous research regarding the effectiveness of plants in treating Alzheimer's disease. However, reports indicate that an early start to usage*

Keywords: Alzheimer's disease, Dementia, Acetylcholine, Memory, Medicinal plants

REFERENCES

- [1]. Mohamed T, Shakeri A, Rao PPN. Amyloid cascade in Alzheimer's disease: recent advances in medicinal chemistry. *Eur J Med Chem.* 2016;113:258-72. [CrossRef] | [Google Scholar]
- [2]. Chase TN, Farlow MR, Clarence-Smith K. Donepezil plus solifenacin (CPC-201) treatment for Alzheimer's disease. *Neurotherapeutics.* 2017;14(2):405-16. [CrossRef] [Google Scholar]
- [3]. Kim DH, Lee SB, Young LD, VYang HD. Hist Alzheimers Dis Dem Neurocognitive Disord. 10.3390/geriatrics6010005. 2016;15(4):115- 21. [CrossRef] [Google Scholar]
- [4]. Soria Lopez JA, Gonzalez HM, Leger GC. Chapter 13. Alzheimer's disease. In: *Handbook of clinical neurology.* 2019;167:231-55. [CrossRef] [Google Scholar]
- [5]. Glenner GG, Wong CW. Alzheimer's disease: initial report of the purification and characterization of a novel cerebrovascular amyloid protein. *Biochem Biophys Res Commun.* 1984;120(3):885-90. [CrossRef] | [Google Scholar]
- [6]. WHO <https://www.who.int/news-room/fact-sheets/detail/dementia> [CrossRef] | [Google Scholar]
- [7]. Bondi MW, Edmonds EC, Salmon DP. Alzheimer's disease: Past, present, and future. *J Int Neuropsychol Soc.* 2017;23(9-10) 81831 <https://doi.org/10.1017/S1539287517000000> [CrossRef] | [Google Scholar]
- [8]. Alzheimer report. 2015 <http://alz.co.uk/research/worldreport-2015> (World Accessed May 02, 2016) [CrossRef] | [Google Scholar]
- [9]. Wimo A, Guerchet M, Ali G, Wu Y, Prina AM. World alzheimer report. *Alzheimer's and Dementia.* 2017;13(1):1-7. [CrossRef] | [Google Scholar]
- [10]. Manual diagnostico e Estatistico de transtornos mentais-DMS-5. 5rd Artmed, editor. Porto Alegre, 2014. Available from:.. [CrossRef] | [Google Scholar]
- [11]. Javed SF, Giebel C, Khan MA, Hashim MJ. Epidemiology of Alzheimers disease and other dementia:rising global burden and forecasted trends *F1000Research;* 2021.10.25. [Cross [Google Scholar]

- [12]. Prakash A, Dhaliwal GK, Kumar P, Majeed ABA. Brain biometals and Alzheimer's disease boon or bane?. *Int J Neurosci*. 2017;127(2):99-108. [CrossRef] | [Google Scholar]
- [13]. Feldman H, Woodward M. The staging and assessment of moderate to severe Alzheimer disease. *Neurology*. 2005;65:10-7. [CrossRef] [Google Scholar]
- [14]. Brayne C. Elephant in the room-healthy brains in later life, epidemiology and public health. *Nat Rev Neurosci*. 2007;8:233-9. [CrossRef] | [Google Scholar]
- [15]. Nestor PJ, Scheltens P, Hodges JR. Advances in the early detection of Alzheimer's disease. *Nat Rev Neurosci*. 2004;5:34-41. [CrossRef] | [Google Scholar]
- [16]. Chong MS, Sahadevan S. An evidence-based clinical approach to the diagnosis of dementia. *Ann Acad Med Singapore*. 2003;32:740-8. [CrossRef] | [Google Scholar]
- [17]. Katzman R: The prevalence and malignancy of Alzheimer's disease. A major killer. *Arch Neurol*. 1976; 33: 217-218.
- [18]. Evans DA, Funkenstein HH, Albert MS: Prevalence of Alzheimer's disease in a community population of older persons: Higher than previously reported. *JAMA*. 1989; 262: 2551-2556.
- [19]. Geldmacher DS, Whitehouse PJ: Differential diagnosis of Alzheimer's disease. *Neurology*. 1997; 48(Suppl 6): S2-S9.
- [20]. World Health Organization: The ICD-10 Classification of Mental and Behavioral Disorders. Geneva: World Health Organization, 1992.
- [21]. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 4th ed. Washington, DC: American Psychiatric Association, 1994.
- [22]. McKhann G, Drachman D, Folstein M, et al.: Clinical diagnosis of AD: Report of NINCDS-ADRDA work group under the auspices of Department of Health and Human Services Task Force on AD. *Neurology*. 1984; 34: 939-944.
- [23]. Schneiders LS: An overview of rating scales used in dementia. *Alzheimer Insights*. 1996; 2: 1-7.
- [24]. Selkoe DJ: Amyloid beta-protein and genetics of Alzheimer's disease. *J Biol Chem*. 1996; 271: 18295-18298.
- [25]. Lue LF, Kuo YM, Roher AE: Soluble amyloid beta peptide concentration as a predictor of synaptic changes in Alzheimer's disease. *Am J Pathol*. 1999; 155: 853-862.