The Pharmaceutical and Chemical Journal, 2024, 11(2):60-64

Available online www.tpcj.org

Research Article

ISSN: 2349-7092
CODEN(USA): PCJHBA

Memory Enhancer Study of Brain vita-H

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Abstract Dementia is a clinical syndrome caused by neurodegeneration (Alzheimer's disease, vascular dementia, Lewy body, and frontotemporal dementia being the most common underlying pathologies) and characterized by inexorably progressive deterioration in cognitive ability and capacity for independent living. Brain Vita-H is a herbal product composed of *Centella asiatica and Acacia Arabica.* The dementia patients were studied for memory loss. The Brain vita tablets are newer alternative options for treatment of dementia.

Keywords Brain vita-H, Memory enhancer, *Centella asiatica, Acacia Arabica,* Herbal Formulation

Introduction

Dementia

Dementia is a medical condition that arises from the degeneration of the brain (commonly associated with Alzheimer's disease, vascular dementia, Lewy body, and frontotemporal dementia). It is characterized by a gradual and irreversible decline in cognitive function and the ability to live independently. Many high-income countries consider it a top priority in the fields of health and social care. The governments of the UK, France, Norway, USA, and South Korea have lately formulated distinct plans or policies. The aging of the population is significantly influencing the rise of the dementia epidemic and is motivating government actions. While there is a growing recognition of cases of dementia occurring in younger individuals, it is mostly an illness that affects older individuals. Among the elderly population, dementia is a significant cause of disability and reliance [1-4]. China, India, and Latin America are expected to have significant and rapid growth in the population of older individuals. By the year 2050, there will be an additional 1.25 billion individuals who are over the age of 60, making up 22% of the global population. Of these individuals, 79% will reside in less developed areas of the world. Currently, these regions have a significantly lower level of awareness on dementia and preparedness of the health system. Hence, it is crucial to monitor the worldwide occurrence of this challenging illness, as well as its geographical spread, in light of the ongoing and rapid changes in population dynamics and health status [5-7]. In 2005, Alzheimer's Disease International [ADI] appointed a group of specialists, led by our team from King's College London, to analyze all existing epidemiological data and establish a unified estimate of the prevalence of Alzheimer's disease in each of the 14 WHO areas. In 2001, the panel approximated that there were 24.3 million individuals suffering from dementia,

with 60% of them residing in low- and middle-income countries (LMIC). It was projected that there would be 4.6 million new instances of dementia year, and the number of affected individuals would almost double every 20 years, reaching 81.1 million by 2040. The estimates were labeled as "provisional" due to the absence of prevalence data in many global regions and the incomplete data in others [8-10].

As per the American Heart Association/American Stroke Association (AHA/ASA), elderly individuals frequently have both vascular and neurodegenerative illnesses, which can occur simultaneously in the same patient. The processes that contribute to the development of cognitive impairment and dementia in individuals with dementia mutually enhance each other, resulting in overlapping clinical phenotypes and neuroimaging findings. Mixed dementia is a condition that occurs in people who have both a neurodegenerative pathology, such as Alzheimer's disease, Lewy body disease, or Pick body disease, and a cerebrovascular disease. This has been documented in studies [11-13].

Mixed dementia, Alzheimer's dementia, and vascular dementia (VD) are the most common types of dementia, and they may be interconnected. There is strong evidence indicating a close connection between Alzheimer's disease (AD) and cardiovascular disease (CVD). For instance, people with AD often experience common CVD lesions such as lacunes and white matter lesions (WML). Similarly, elderly patients with VD exhibit the usual histological alterations associated with AD, such as external amyloid plaques (known as "senile senile") and intracellular neurofibrillary tangles (NFT). AD and VD frequently coexist and interact in various ways, leading to an increased probability of noticeable cognitive deterioration [11-13].

Plants

Centella asiatica

Centella asiatica is a significant medicinal herb that is extensively utilized in the orient and is gaining popularity in the Western world. The main medicinal activities of *Centella asiatica* are mostly attributed to its triterpenoid saponins, which are considered to be the principal ingredients of the plant [14].

The utilization of Centella in food and drinks has shown a rise in recent years mostly due to its advantageous functional qualities. The plant's bioactive constituents, including triterpenic acid (asiatic acid and madecassic acid), triterpenic saponin (madecassoside and asiaticoside), flavonoids, and other phenolic compounds, are responsible for its potential antioxidant, antimicrobial, cytotoxic, neuroprotective, and other activities. These activities have been extensively reported and are closely linked to the properties and mechanism of action of these constituents. This review provides a current and thorough analysis of the chemistry and many health-promoting functional features of the Centella plant [15].

Centella asiatica has been found to enhance cognitive performance, however its impact on various aspects of cognitive function in women with dementia remains restricted [16-17].

Acacia Arabica

Acacia arabica has demonstrated efficacy in treating various diseases, including diabetes, skin ailments, and notably, cancer. The fresh plant parts of Acacia arabica are regarded as having astringent, demulcent, aphrodisiac, anthelmintic, antibacterial, and antidiarrheal properties, and are also believed to have significant nutritional value in the Indian traditional medicine system [18].

Acacia arabica is an often chosen tree for decorative purposes along roads and pathways. Babool, also known as *Acacia nilotica,* is widely utilized in the Indian System of Medicine to prevent and treat numerous health conditions. This traditional practice has been in existence for centuries in India. The efficacy of Acacia arabica bark has been documented in treating multiple disorders [19].

Composition

Sr. No.	Ingredient	Latin name	Quantity	Part of plant	Book Name
1	Brahmi	*Centella asiatica*	240 mg	Panchang	BPN
2	Babool Gond	*Acacia Arabica*	10 mg	Niryas	API I/I

More than 24 million individuals worldwide suffer from dementia. Alzheimer's disease (AD) is the primary cause of dementia and accounts for two-thirds of all cases of this disorder. Undoubtedly, the prevalence of AD will escalate with advancing age and reaches approximately 24% to 33% in people aged eighty-five years and above. Cholinesterase inhibitors (ChEI) and memantine offer limited clinical benefits, although there is now no definitive evidence of their ability to worsen the condition. Therefore, there is a critical need to develop novel medicines for Alzheimer's disease. Randomized, double-blind, placebo-controlled clinical trials (RCTs) are essential for establishing the effectiveness of medications intended to improve cognition and function in people with Alzheimer's disease (AD) [20-24].

Inclusion Criteria

- Subjects with dementia or other memory impairment not due to Alzheimer’s disease, such as mixed or vascular dementia, dementia with Lewy bodies, Parkinson’s disease dementia, frontotemporal dementia, substance-induced dementia, human immunodeficiency virus-dementia, traumatic brain injury, normal pressure hydrocephalus, or any other specific non-Alzheimer’s-type dementia; subjects with a diagnosis of Down syndrome.
- Subjects with a previous magnetic resonance imaging (MRI)/computed tomography (CT) scan of the brain, which was performed after the onset of the symptoms of dementia, with findings consistent with a clinically significant central nervous system disease other than Alzheimer’s disease, such as vascular changes (eg, cortical stroke, multiple infarcts), space-occupying lesion (eg, tumor), or other major structural brain disease.
- Subjects with a history of stroke, well-documented transient ischemic attack, or pulmonary or cerebral embolism.
- Subjects with delirium or history of delirium within the 30 days prior to the screening visit.
- Subjects who have received high-dose antipsychotics exceeding the equivalent of ≥ 3 mg of risperidone (eg, ≥ 5 mg of haloperidol, ≥ 375 mg quetiapine, ≥ 10 mg olanzapine, or local equivalent) within 90 days prior to screening.
- Subjects who have received multiple antipsychotic medications simultaneously for a period of > 7 days within 90 days prior to screening.
- Subjects with evidence of serious risk of suicide based on the Sheehan Suicidality Tracking Scale (Sheehan-STS), ie, a score of 3 or 4 on any one question 2 through 6 or 11, or a score of 2 or higher on any one questions 1a, 7 through 10, or 12, or who, in the opinion of the investigator, present a serious risk of suicide.
- Subjects considered in poor general health based on the investigator’s judgment. Examples include subjects who have a recent clinically significant weight loss, chronic dehydration or hypovolemia, poor fluid or nutritional intake, or a recent clinically significant infection, as per the investigator’s judgment (4-5).

Inclusion

Enrolled 34 Demantia patients in our study.

After screening, statt tablet Brain vita-H as per the study protocol.

Results and Discussion

Tab. Brain vita taking all the patients we used this common pattern for evaluating formulation efficacy. Questions below

1. Do you have trouble making decisions even for everyday things such as what to eat, clothes to wear, making plans with family/friends, what to read? *

- Never
- Sometimes
- Always

2. Do you have trouble focusing or concentrating while watching TV, playing on your phone/tablet, or listening to music? *

- Never
- Sometimes
- Always

3. Do you forget the names of familiar objects and use general phrases such as '*you know what I mean*' or '*that thing*'? *

- Never
- Sometimes
- Always

4. Do you get easily confused driving, or using tools? Do you get lost in places that are familiar to you (i.e. your neighborhood or the grocery store)? *

- Never
- Sometimes
- Always

5. Do you find that you miss social cues, which may lead to not understanding what others are saying, laughing at inappropriate times, staying on a topic despite a lack of interest by others, and/or saying things that are viewed as offensive? *

- Never
- Sometimes
- Always

After completion treatment we are getting positive and descriptive answers from all the patients.

Conclusion

The Brain vita tablets are newer alternative options for treatment of dementia.

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