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Review Article

Shankhpushpi (*Convolvulus prostratus*): Natural Brain Booster and Nootropic Herb

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ABSTRACT

Shankhpushpi (Convolvulus prostratus Linn.), an important indigenous herb of the family Convolvulaceae, occupies a remarkable position in the Indian system of medicine, particularly in Ayurveda, Siddha, and Unani traditions. Classified as a Medhya Rasayana—a rejuvenating drug for the brain and nervous system—it has been revered for centuries as an effective nervine tonic, memory enhancer, anxiolytic, and neuroprotective agent. The name "Shankhpushpi" is derived from its characteristic conch-shaped flowers (Shankha meaning conch, and Pushpi meaning flower). Traditionally, the plant has been employed to treat mental debility, insomnia, anxiety, epilepsy, hypertension, and various cognitive disorders. In the context of modern pharmacology, increasing attention has been directed toward its multifaceted actions on the central nervous system (CNS), validating its ancient claims through contemporary scientific exploration. The present review provides an exhaustive compilation of traditional, phytochemical, pharmacological, and clinical data available on Shankhpushpi with a focus on its mechanisms of action and therapeutic implications. Phytochemical investigations have identified several classes of bioactive compounds, including alkaloids (shankhapushpine, convolvine, convolamine, scopoletin), flavonoids (kaempferol, quercetin, myricetin), glycosides, coumarins, and fatty acids. These constituents are believed to act synergistically to produce diverse pharmacological effects such as nootropic, antioxidant, anticonvulsant, anxiolytic, and neuroprotective activities. Experimental studies have shown that Shankhpushpi enhances cholinergic transmission, upregulates acetylcholine levels in the brain, and improves synaptic plasticity, thereby facilitating learning and memory consolidation. It also modulates key neurotransmitters including serotonin, dopamine, and GABA, which collectively contribute to its mood-stabilizing and anxiolytic effects.

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INTRODUCTION

Since ancient times, the human species has relied on plants for food, housing, medicine and other necessities. In Asian and African nations, medicinal plants play a significant role in traditional medical systems. Herbs have been used from many centuries as a natural medicine to treat the variety of diseases. Some herbs contain active ingredients that have been shown to promote neurotransmitter levels in the brain, lower oxidative stress, and enhance memory and cognitive performance. Medicinal plants are considered as very important source for drug production due to presence of therapeutic phytochemicals.

The local and important herb Shankhpushpi (Convolvulus prostratus) is well known for its capacity to improve nervous system functions. Because of its strong bioactive ingredients, it is frequently utilized in traditional Ayurvedic treatment as a single herb and in formulations. This plant belongs to the Convolvulaceae family and is widely distributed across the various region. Shankhpushpi of the Ayurvedic pharmacopeia of India consists of the whole plant of Convolvulus pluricaulis and Convolvulus microphyllus. Shankhpushpi has long been used to treat poor energy, insomnia, exhaustion, and nervous debility. It is used as brain tonic to boost the brain.

Traditional Shankhpushpi formulations, like Churna, Vati, and Shankhpushpi syrup, are frequently prescribed as adaptogens and brain tonics. According to clinical observations, it may help patients with mental exhaustion and moderate cognitive impairment by enhancing their attention span, cognitive alertness, and emotional equilibrium. The herb's therapeutic range is expanded by its hepatoprotective, antiulcer, immunomodulatory, and hypolipidemic properties in addition to its neuropharmacological activity.

Shankhpushpi used to treat the central nervous system disorder (CNS) like a memory loss, anxiety, epilepsy, thinking ability, dementia and insomnia. It is Nootropic drug that means brain supplements, cognitive and memory enhancers, brain boosters. The ethanolic and methanolic extracts decreased mice's spontaneous motor activity, eliminated the conditioned avoidance response and tremorine induced tremors. The juice of whole plant prevents excessive menstruation in female. The fine paste made by grinding the plant is helpful to cure absces

Taxonomical classification:

Table 1. Taxonomical Classification

Kingdom:	Plantae
Sub-kingdom:	Tracheobionta
Super-division:	Spermatophyta
Division:	Magnoliophyta
Class:	Magnoliopsida
Sub-class:	Asteridae
Order:	Solanales
Family:	Convolvulaceae
Genus:	Convolvulus L.
Species:	C. prostrates Forssk

Common Names of Shankhpushpi:

Table 2.- Common Names of Shankhpushpi

English	Speedwheel
Hindi	Shankhpushpi, Aparajit
Sanskrit	Sankhapuspi
Urdu	Sankhali
Gujarati	Shankhavali
Kannada	Bilikanthisoppu
Malayalam	Krsnakranti
Marathi	Shankhabela
Tibetan	Shankhapushpi
Telugu	Shankhapushpi
Tamil	Sanghupushpam

Description:

The stem of Shankhpushpi is light green, slender and cylindrical with a thickness of about 0.1cm or

less. It is a perennial herb that seems like morning glory. Branches of herb spread on the ground and can be more than 30cm long. The flowers are blue in color; it has noticeable hairy nodes and internodes. Under a microscope the stem shows a single layered unicellular hair. The cortex is differentiated into two zones: 2-3 layers of upper collenchymatous cells and 1-2 layers of lower parenchymatous cells both of which are round to oval and elongated. The fruit is capsule shaped, oblong to globose, with a leathery pale brown outer layer. Seed are brown with fine minute hairs. The herb is commonly found in India, especially in the state of Bihar.

Shankpushpi plant uses:

The herbal extracts of plants are seen to possess spermatogenic properties, so it can be beneficial in cases of sperm debility. It is used to treat the urinary system ailments. It is known to have cooling effects that alleviate symptoms of vomiting, burning sensations, and thirst which is common during fever. Plant extracts can is used for ailments in a respiratory system-like cough and cold, it is also used to prevent irritation of respiratory organs as it has expectorant properties. The Herbal extracts have tranquilizing effects and thus used for syncope, vertigo, etc. Herbal extracts are also used for treating the digestive system and other ailments such as jaundice, constipation, piles dyspepsia, etc. The hemostatic effects of shankhpushpi are beneficial for piles mostly the bleeding piles. A decoction of this herbal plant is used for cleaning wounds and it has the ability to prevent pus formation. In Ayurveda, the Shankhapushpi plant is also used for the treatment of epilepsy.

Shankhpushpi Leaves Uses:

Leaves of Shankhpushpi plants can be grounded and mixed with salt for applying over swellings. Powder of leaves is also used for treating brain disorders. The leaves of white flower shankhpushpi are mixed with salt made into a paste and applied for retroauricular adenitis. The fresh leaves juice mixed with ginger juice is an effective remedy for controlling excessive sweating. The powdered leaves are used for treating brain disorders. Leaves of Shankhapushpi plant are used to treat bronchitis and asthma.

Shankhpushpi Flower Uses:

A gram of Shankupushpam flower powder if taken daily with honey can be useful for uterus bleeding problems. The blue flowers of Shankhpushpi are used for food coloring for rice and other recipes in some of the Asian region.

Shankhpushpi Roots uses:

The roots of grounded shankhpushpi are used with ghee or butter, two to three times daily to increase memory and intelligence. The root extracts of shankhpushpi are used for eye, throat infections, ulcers, and urinary. For migraines, the root juice extracts are poured through nostrils. The roots of the white-flowered Shankhpushpi are used as a medicinal paste for skin diseases. The root juice with milk is beneficial in sticky phlegm cough and it can also relieve asthma problems.

Shankhpushpi Seed Uses:

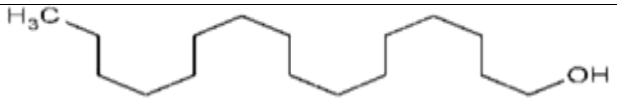
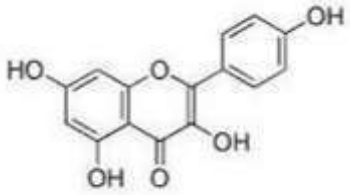
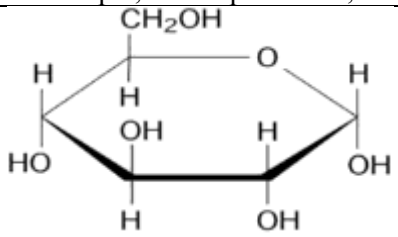
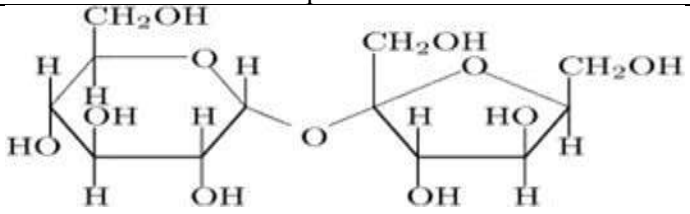
The seeds are fried in ghee and powdered and consumed with hot water for skin diseases. The crushed seeds mixed with honey and are used for applying Tonsillitis.

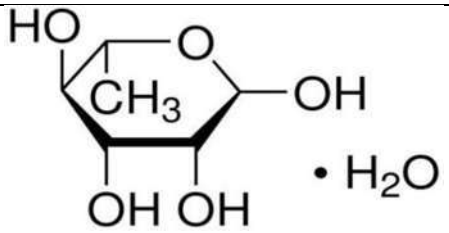
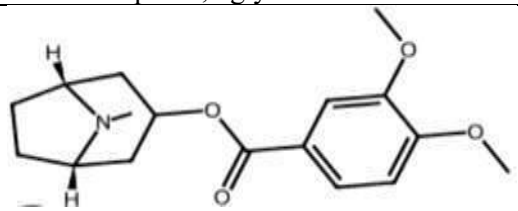
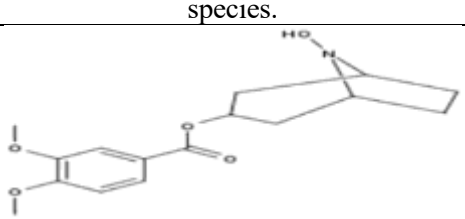
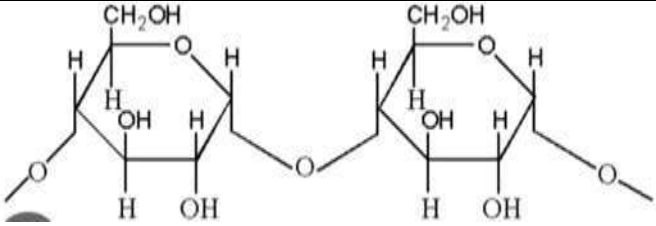
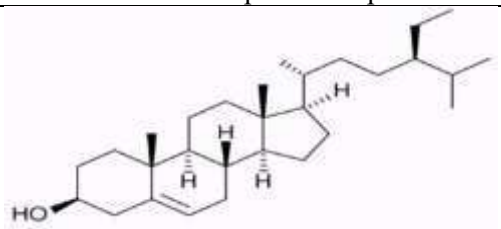
Figure 1: Shankhpushpi

Chemical constituents:

Class	Chemical constituents
Carbohydrates	D-glucose, maltose, rhamnose, sucrose, starch, and other carbohydrates
Proteins and amino acids	Protein and amino acids
Alkaloid	Shankhapushpine, convolamine, convoline, convolidine, convolvine, confoline, convosine.
Fatty acids\ volatile acids\ fixed oil	Fatty alcohols, hydrocarbons, myristic acid, palmitic acids and linoleic acids.
Phenolic\ glycosides\ triterpenoids\ steroids	Scopoletin, *B-sitosterol, ceryl alcohols, 20-oxodotriacontanol, tetratriacontanoic acids, kampferol, phytosterols.*

Table 3 - Phytochemical structures present in C. prostratus

Chemical name	Structure
Cetyl alcohol	 Cetyl alcohol is also known as palmityl alcohol, is a fatty alcohol.
Kampferol	 Kampferol is a natural flavonoid, it has a wide range of pharmacological activities such as antimicrobial, anti-cancer, anti-inflammatory, neurotropic, cardio protective, etc.
Glucose	 Glucose is a dextrose or sugar; it is a monosaccharide mainly found in plants.
Sucrose	

Maltose	 It is a disaccharide sugar made of two glucose units linked by an alpha-1,4 glycosidic bond.
Convolvine	 Convolvine is alkaloids present in the leaves and stem of this species.
Convoline	 Convoline is a known chemical constituent of Convolvulus prostratus. It is one of several alkaloids present in this plant.
Linoleic acid	 It is an unsaturated n-6 fatty acid present in this species.
Starch	 Research has identified starch as a chemical component present within the Convolvulus prostratus plant itself.
Sitosterol	 It is a phytosterol with chemical structure similar to chxolesterol, found in the Shankhpushpi plant.

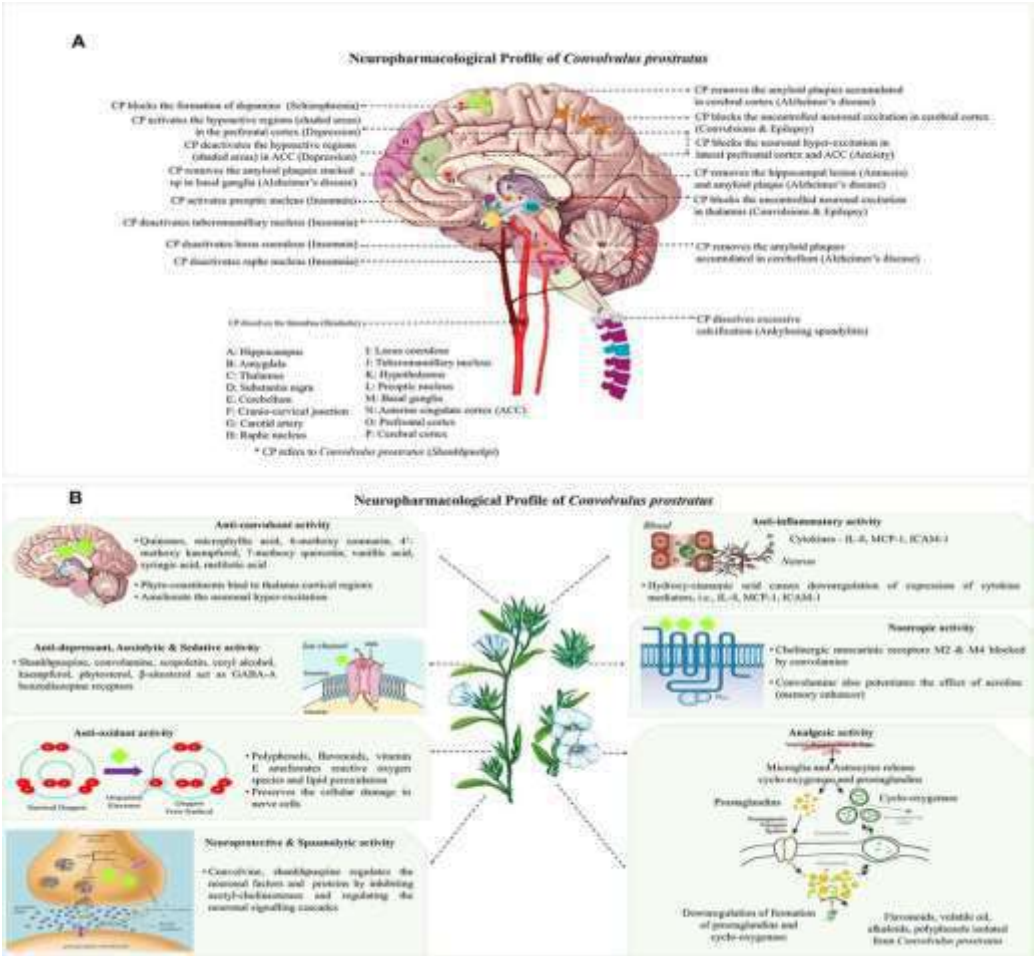


Fig. 2- Mechanism of Action

MECHANISM OF ACTION:

1. Cholinergic System Modulation

Shankhpushpi enhances cholinergic neurotransmission, which is vital for learning and memory. The alkaloids such as shankhpushpine and convolvine inhibit the enzyme acetylcholinesterase (AChE). This increases the level of acetylcholine (ACh) at synaptic junctions, leading to:

- Improved memory retention
- Enhanced learning ability
- Better cognitive performance

Mechanistic pathway: ↓AChE activity → ↑ Acetylcholine concentration → ↑ Synaptic transmission, Improved Cognition.

2. GABAergic and Serotonergic Modulation

Shankhpushpi acts on GABAergic neurons and enhances GABA (gamma-aminobutyric acid) activity — the primary inhibitory neurotransmitter in the CNS. This produces a calming and anxiolytic effect.

It also regulates serotonin (5-HT) and dopamine levels, balancing mood and reducing anxiety.

Mechanistic pathway: ↑ GABAergic tone + balanced 5-HT & dopamine → ↓ Anxiety → Improved mental relaxation.

3. Antioxidant and Neuroprotective Mechanism:

The herb contains flavonoids, phenolic compounds, and coumarins that exhibit strong antioxidant activity. These compounds scavenge reactive oxygen species (ROS) and reduce lipid peroxidation, thereby protecting neurons from oxidative stress–induced damage.

Enhanced antioxidant defense also supports neuronal longevity and prevents neurodegenerative changes.

Mechanistic Pathway: ↓ ROS & lipid peroxidation → ↑ Neuronal survival → Neuroprotection

4. Regulation of Brain Enzymes and Lipids:

It decreases Monoamine Oxidase (MAO) activity, leading to higher availability of monoamines (dopamine, serotonin, norepinephrine) essential for mood, alertness, and memory.

It also maintains membrane phospholipid composition, ensuring neuron membrane stability.

Mechanistic pathway: ↓ MAO → ↑ Monoamines → Better mood and cognition

5. Improvement in Cerebral Blood Flow

Shankhpushpi enhances cerebral circulation by improving blood flow and oxygen utilization in brain tissue. This ensures optimal nutrient and oxygen delivery to neurons, which improves alertness and focus.

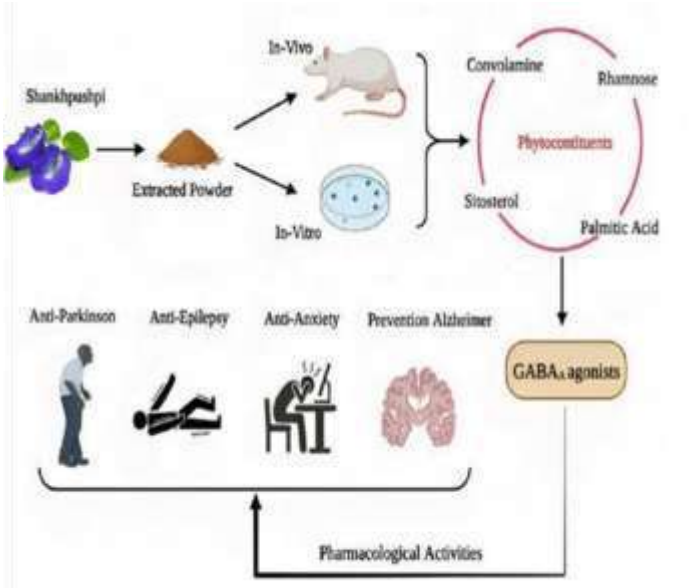
Mechanistic pathway: ↑ Cerebral perfusion → ↑ Oxygen & nutrient supply → ↑ Brain efficiency

6. Adaptogenic and Anti-Stress Mechanism

Shankhpushpi acts as an adaptogen by stabilizing the Hypothalamic–Pituitary–Adrenal (HPA) axis. It helps reduce elevated cortisol levels during stress conditions and normalizes adrenal gland function.

This regulation decreases mental fatigue, promotes calmness, and enhances resilience to stress.

Mechanistic Pathway: ↓ Cortisol secretion → Normalized HPA axis → ↓ Stress response → Mental relaxation.



Therapeutic potential of Shankhpushpi in neurodegenerative disorders.

Fig.- Therapeutic potential of Shankhpushpi

Table 4 - Chemical constituents, parts and mechanism of action.

Chemical constituents	Parts used	Mechanism of action	Diseases
Flavonoids	Leaves	Antioxidant and anti- inflammatory properties	Inflammation
Glycosides	Seeds	Cardioprotective effects	Cardiovascular diseases
Saponins	Roots	Immune- modulatory, antiviral Activities	Viral infections
Alkaloids	Whole plant	Neuroprotective effects, enhancing neurotransmitters	Neurological disorders
Terpenoids	Flowers	Anti-anxiety and sedative effects	Anxiety
Phenolic compounds	Aerial parts	Antimicrobial and wound healing properties	Infections, wounds
B-Sitosterol	Aerial parts	Pro-apoptotic, anti- proliferative, antipyretic, and anti- inflammatory	Fever, Inflammation
Convoline	Roots and aerial parts	Anti-epileptic property	Epilepsy
Scopoletin	Whole herb	Action that are anti- fungal, anti-aging, Hypouricemic, and anti-allergic	Fungal infection and allergy

TRADITIONAL USES:

According to reports, this plant is a well-known memory enhancer, a psychostimulant a tranquilizer and a stress reliever. A relevant reference on the drug's use as a brain tonic in hypotensive disorders can be found in Ayurvedic literature. The herbs pharmacological research has revealed a range of hypotensive and sedative properties. Clinical research has shown that C. pluricaulis has measurable positive effects on people with anxiety neurosis.

- Effect on learning
- Improve cognitive functioning
- Prevents And memory headache
- Reduce mental functioning
- Enhances Memory fatigue
- Cardiac boosting herb

A. Health benefits of Shankhpushpi

Improves Cognitive Functioning:

Shankhpushpi is a traditional remedy for increasing the functioning of the brain. The powerful antioxidants and flavonoids present in it improve memory capacity, focus, concentration, alertness of an individual. Being a brain tonic and stimulator, people taking shankhpushpi improved memory, reasoning, problem-solving, and other cognitive abilities. The neuroprotective elements in the plant prevent loss of memory and relieve tension from the brain.

Reduces Mental Fatigue:

Mental fatigue is a condition of excessive and prolonged cognitive activity. It mostly occurs due to excessive work using a computer, watching television for hours, learning or memorizing activities, etc. and causes a person to lose concentration and feel lethargic. Shankhpushpi is a powerful memory booster that helps in enhancing the brain's working capacity and reduce the loss of concentration. Intake of a decoction of a spoonful of shankhpushpi powder with a glass of water on a daily basis can do wonders in boosting your memory.

Shankhpushpi for Depression:

Shankhapushpi holds high significance due to its potent anti-stress, anti-depressive and anti- anxiety properties are extremely useful for treating different types of psychotic problems like depression, dementia, restlessness, etc. It balances the brain chemicals i.e. neurotransmitters and ups the secretion of dopamine which in turn keeps the serotonin level under control and helps to reduce various symptoms of anxiety which includes restlessness, uneasiness, cold hands, and feet, and helps in relaxing the mind and body.

Enhances Cardiac Functioning:

Shankhpushpi is extremely effective in treating various heart ailments due to its strong antioxidative nature. It strengthens the heart muscles and prevents lipid build up in the blood vessels. The bioactive constituents like the ethanolic extract reduce the levels of non-esterified fatty acids i.e. NEFA, and hence reduces the risk of heart attacks, heart blocks, blood clots, etc. It also plays a key role in lowering the levels of cholesterol in the blood.

Stimulate Digestion:

The digestive properties found in this traditional herb is found to be extremely beneficial in improving digestion. It stimulates the secretion of digestive juices thereby increasing the absorption of essential nutrients and enhancing digestion. It also prevents fluid retention and treats symptoms of abdominal pain, abdominal distension, ulcerative colitis, and irritable bowel syndrome.

Shankhpushpi for Neural Diseases:

This memory-boosting herb is a magical remedy for a host of psychotic diseases like epilepsy, dementia, Alzheimer's as it prevents the destruction of neurons and improves cognitive functioning. Also Read: World Alzheimer's Day: Try These Nutritious Smoothies to Enhance Brain Function.

Nootropic Activity:

Volatile oil, fatty acids, flavonoids like kaempferol and hydroxycinnamic acid, b-sitosterol and carbohydrates like glucose, rhamnose, sucrose, etc. are all present in C. prostratus giving it nootropic properties. Convolvine an alkaloid in this herb has also been discovered to block the M2 and M4 cholinergic muscarinic receptors. Convolvine also helps arecoline, another muscarinic memory booster, work more effectively giving C. prostratus nootropic properties

SHANKHPUSHPI FORMULATIONS:

Shankhpushpi is widely available in the market in various forms like tablets or capsules known as gutikas, powder or churna, juices syrups and oil.

Shankhpushpi Syrup

Shankhpusphi syrup is an excellent ayurvedic formulation which works wonders in enhancing brain power and memory. It is highly beneficial in

treating mental issues, forgetfulness and poor concentration. The herb acts on brain and nerves cells thereby enable to calm the mind, lowers anxiety, mental pressure, stress and depression. It is best suggested for enhancing learning abilities and stimulating intelligent quotient in children, while it is also valuable in preventing dementia and memory loss in older people. The powerful combination of shankhpusphi and Brahmi in the syrup functions as an amazing brain stimulant.

Shankhpushpi Powder:

The powder can be infused in lukewarm milk and can be ingested in the morning preferably after meals. Used on a daily basis, it is extremely beneficial to boost memory.

Shankhpushpi Juice:

The juice can be mixed with water or taken as shots twice a day to prevent memory loss and boost brain functioning.

Shankhpushpi oil:

Massaging the forehead and scalp with the oil relieves from stress and headache.

Shankhpushpi Decoction:

Boil 1 teaspoon of shankhpushpi powder with a cup of water. Cool, filter the liquid and apply it over the wounds dabbed in cotton to eliminate germs and enhance quick healing.

MODERN PERSPECTIVE AND FUTURE DIRECTIONS:

Taxonomic clarification

Establish and promote one authentic botanical source for standardization.

Drug discovery and development

The bioactive compounds identified in Convolvulus prostratus hold promise as lead molecules for drug development. Further research is required to isolate, characterize, and evaluate these compounds for their therapeutic potential against various diseases.

Clinical Trails

To establish the safety and efficacy of Convolvulus prostratus for human use, well designated clinical trials are essential. These trails should evaluate its potential benefits and side effects across different patient populations.

Combination Therapy Research

Study synergistic effects with other Ayurvedic herbs like Brahmi and Ashwagandha.

Formulation Development

Design novel dosage forms like nanoparticles, liposomes or nasal sprays for improved brain bioavailability. Techniques like nanotechnology and microencapsulation could enhance the stability and bioavailability of its bioactive compounds.

Global Recognition

Promote Shankhpushpi as a natural nootropic in global herbal markets through validated scientific data.

CONCLUSION:

Present review discusses the plant profile, pharmacognosy, pharmacology, phytochemistry of the herb Convolvulus prostratus. It is a perennial herb that seems like morning glory. Shankhpushpi is a highly valued traditional herb widely recognized for its potent neuropharmacological and adaptogenic properties.

Modern pharmacological studies have validated its traditional use as a memory enhancer, anxiolytic, antidepressant, and neuroprotective agent. The presence of bioactive constituents such as alkaloids, flavonoids, and glycosides contributes to its therapeutic potential in managing cognitive disorders, stress, and neurological diseases. Despite promising preclinical data, further systematic clinical trials, standardization of extracts, and elucidation of molecular mechanisms are essential to confirm its efficacy and safety. Future research focusing on formulation development, synergistic herbal combinations, and pharmacokinetic studies can help in establishing Shankhpushpi as an evidence-based phytotherapeutic agent for brain health and mental wellness. Clinical trials are necessary to establish its safety and efficacy in humans. Incorporating Convolvulus prostratus into modern medicine could offer a valuable addition to the existing pharmacological armamentarium.

REFERENCES

1. Agarwal P, Alok S, Fatima A, Singh PP. Herbal remedies for neurodegenerative disorder (Alzheimer's disease): a review. Int J Pharm Sci Res 2013; 4(9):3328- 3340.
2. Ministry of Health and family Welfare, Department of Indian Systems of medicine and homeopathy. The Ayurvedic pharmacopoeia of India. New Delhi: controller of publications; 2001.
3. Johnson N, Davis T, Bosanquet N. The epidemic of Alzheimer's disease [J]. How can we manage the costs? Pharmacoeconomics, 2000, 18(3): 215-223.
4. Goyal PR, Singh KP. Shankhpushpi (Evolvulusalsinoides Linn.) [J]. A medicinal herb. Int J Mendel, 2005, 22(3-4): 124-125.
5. Fatima A, Agrawal P, Singh PP. Herbal option for diabetes: an overview. Asian Pac J Trop Dis 2012; 2(suppl 1): S536-S544.
6. Shah VC, Bole PV. Further pharmacognostic studies on the drug 'Shankhpushpi'[J]. J UniversBombay, 1960, 29: 154-165.
7. Balkrishna A., Singh G., Joshi M. Phytochemical profile, pharmacological attributes and therapeutic potentials of Convolvulus prostratus (syn. Convolvulus pluricaulis) — a nootropic herb. Frontiers in Pharmacology. 2020. comprehensive modern review of phytochemistry and neuropharmacology.
8. Sharma R., et al. Role of Shankhpushpi (Convolvulus pluricaulis) in neurological disorders: an umbrella review from ethnopharmacology to clinical studies. (PubMed summary / review). 2022.— umbrella review covering ethnobotany → preclinical → clinical evidence.
9. Sethiya N.K., Mishra S.H. Comparative pharmacognostical investigation of four botanicals used as Shankhpushpi. Journal / PMC. 2010. — important pharmacognosy work comparing multiple species used under the common name "Shankhpushpi.
10. Rachamalla M., et al. Role of Shankhpushpi (Convolvulus pluricaulis) in inflammatory and neurological disorders: a recent review. International Journal (2023). — recent synthesis emphasizing inflammation and neurological disorder models.
11. Devi P. An updated review on Shankhpushpi as Medhya Rasayana. Journal of Ayurveda & Holistic Medicine (2021). — useful when discussing classical Ayurvedic sources, traditional terminology and clinical/experimental overviews.
12. A. Kizhakke P et al. Convolvulus pluricaulis (Shankhapushpi) ameliorates human microtubule-associated protein tau (hMAPτ)

induced neurotoxicity in Alzheimer's disease Drosophila model J. Chem. Neuroanat (2019).
13. Bharkatiya M, Goyal A, Gupta GD, Gaud RS, Memory enhancers. Indian Pharmacist 2006 5(8):32-36.
14. Uoadhya AS, Kambhojkar MS. Studies on Ayurvedic drug Shankhpushpi from Western Maharashtra medico botanical reported aspects. Bullet Med Ethanob Res 1990;14(1-2):64-69.
15. Thakur S, Kaurav H, Ayurvedic medicinal importance of Shankhpushpi (Convolvulus pluricaulis): Potential Congnition boosting herb. Int J.Pharma.Sci. Health care, 2021, 4(10), 2249- 5738.
16. Gupta V., Kaur R. (2019). Neuropharmacological evaluation of Convolvulus pluricaulis Linn.Pharmacognosy Reviews, 13(26), 50–56
17. Meena H., Rathore K. (2020). Role of herbal adaptogens in cognitive health: A review on Shankhpushpi. International Journal of Ayurveda Research, 11(3), 145–152.
18. Sharma K, Bhatnagar M. Effect of Convolvulus pluricaulis on learning behavior and memory enhancement in rats. Indian J Exp Biol. 2011;49(6):479–485.
19. Tripathi YB, Chaurasia S, Tripathi E, Upadhyay A, Dubey GP. Bacopa monniera and Shankhpushpi: neurochemical and pharmacological aspects. Phytother Res. 1996;10(6):518–525.
20. Pandey S, et al. Phytochemical and pharmacological review on Shankhpushpi (Convolvulus pluricaulis Choisy). J Drug Deliv Ther. 2019;9(3):645–650.
21. Singh A, et al. Antioxidant and neuroprotective role of Shankhpushpi. J Ayurveda Integr Med. 2020;11(4):551–558.
22. Balkrishna, A., et al. (2020). Phytochemical profile, pharmacological attributes and medicinal properties of Convolvulus pluricaulis — a cognitive enhancer herb. Frontiers in Pharmacology.
23. Review: Convolvulus plant — A comprehensive review from phytochemistry to pharmacology. (Wiley, 2019).
24. Hannan M.A., et al. (2022). Protective mechanisms of nootropic herb Shankhpushpi: network pharmacology and docking approach. (Open Access).
25. Kathirvel B., et al. (2021). A review on the pharmacological properties of Evolvulus alsinoides. Journal of Interdisciplinary Science & Medicine (JISM).
26. Aulakh G.S., Narayanan S., Mahadevan G. (1988). Phyto-chemistry and pharmacology of shankapushpi – four varieties. Ancient Science of Life. (classic review).
27. An Updated Review on Shankhpushpi as Herbal Medicine (Convolvulus pluricaulis)." Indian Journal of Pharmaceutical Sciences (IJPS).
28. Ranga V., et al. (2021). Review on Shankhpushpi—sources, controversies and uses. World Journal of Pharmaceutical Research (WJPR).
29. Awere C.O., et al. (2025). State of the art progress of Evolvulus alsinoides in therapeutic applications. (ScienceDirect).
30. Nithya K., et al. (2023). Nootropic activity of methanolic extract from Evolvulus alsinoides. PMC article.
31. Research articles on scopoletin, convolvine, convolamine: (see citations in Balkrishna 2020 and Hannan 2022).
32. Yellamma K., Vanaja D. (2016). Evolvulus alsinoides as a cognitive enhancer in AD-induced rat model. RJPBCS (2016).
33. Ramachandran / others (2017). Evolvulus alsinoides extract as a modulator of cholinergic system with reference to Alzheimer's disease. International Journal of Pharmaceutical Sciences & Research (IJPSR).

34. Ravichandra V.D., et al. (2013). Hepatoprotective potentials of aqueous extract of Convolvulus pluricaulis.
35. Jetir / local review: Review on Controversial Drug: Shankpushpi — discussion of multiple botanical sources used as "Shankhpushpi."
36. Sundaramoorthy PMK, Packiam KK, et al. In vitro enzyme inhibitory and cytotoxic studies with Evolvulus alsinoides (Linn.) Linn. leaf extract: a plant from Ayurveda recognized as Dasapushpam for the management of Alzheimer's disease and diabetes mellitus.
37. Mudgal V, et al. Studies on medicinal properties of Convolvulus pluricaulis and allied species. Planta Med. 1975; (classic experimental report / early pharmacology).
38. Mukundh ST, et al. An in-vitro and in-silico study exploring biological activities of Evolvulus alsinoides phytochemicals. (Open access PMC) 2024.
39. Nahata A, Patil UK, Dixit VK. Effect of Evolvulus alsinoides Linn. on learning behaviour and memory enhancement activity in rodents. Phytother Res. 2010;24(4):486–493.
40. Dev R. Exploring pharmacological properties and therapeutic potential of Shankhpushpi (Convolvulus pluricaulis): a short review.

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