



## Ayurveda management of Multiple Sclerosis - A Case Report

Chaudhary M<sup>1\*</sup>, Goyal M<sup>2</sup>, Mehta C<sup>3</sup>

DOI:10.21760/jaims.10.9.60

<sup>1\*</sup> Manisha Chaudhary, Post Graduate Scholar, Department of Kayachikitsa, Institute of Teaching and Research in Ayurveda, Jamnagar, Gujarat, India.

<sup>2</sup> Mandip Goyal, HOD, Department of Kayachikitsa, Institute of Teaching and Research in Ayurveda, Jamnagar, Gujarat, India.

<sup>3</sup> Charmi Mehta, Lecturer, Department of Kayachikitsa, Institute of Teaching and Research in Ayurveda, Jamnagar, Gujarat, India.

Multiple sclerosis is a chronic and progressive disorder that presents with various cognitive, motor, and sensory impairments. This autoimmune disease occurs when the immune system damages the myelin sheath surrounding nerve fibres, disrupting communication between the brain and the rest of the body. Although corticosteroids are commonly prescribed in conventional medicine, they often fail to provide comprehensive or sustained relief. In Ayurveda, while there is no explicit mention of multiple sclerosis, the condition can be classified under Vatavyadhi (~neurological and musculoskeletal disorders due to vitiation of Vata Doṣha) based on its clinical characteristics. A 54-year-old female homemaker presented with continuous, throbbing pain in the right temporal region, radiating to her neck, right upper back, and both upper and lower limbs for the past two years. She has a known history of multiple sclerosis, confirmed by MRI reports indicating chronic demyelinating lesions. In Ayurveda, she was diagnosed with Kaphavrita Vyana Vata. The treatment plan included Deepana Pachana with Anulomana, Basti Karma (~medicated enema), and Nasya Karma (~therapeutic nasal instillation of medicated oils), along with Shamana Chikitsa (~conservative therapy). Throughout her treatment, she was advised to follow Pathya-Apathya (~wholesome diet and lifestyle) to support the management of Vata Vyadhi. After three months of treatment, significant improvement was observed. The assessment of disease severity and quality of life using the FAMS scale, Berg Balance Scale, and SF-36 revealed significant improvements. This single case report demonstrates the effectiveness of Ayurvedic treatments for conditions similar to multiple sclerosis.

**Keywords:** Basti Karma, Kaphavṛta Vyana Vata, Majja Kṣhaya, Multiple Sclerosis

## Corresponding Author

Manisha Chaudhary, Post Graduate Scholar,  
Department of Kayachikitsa, Institute of Teaching  
and Research in Ayurveda, Jamnagar, Gujarat, India.  
Email: [mkchaudhary012@gmail.com](mailto:mkchaudhary012@gmail.com)

## How to Cite this Article

Chaudhary M, Goyal M, Mehta C, [Ayurveda  
management of Multiple Sclerosis - A Case Report](#). J  
Ayu Int Med Sci. 2025;10(9):372-378.  
Available From  
<https://jaims.in/jaims/article/view/4711/>

## To Browse



Manuscript Received  
2025-07-15

Review Round 1  
2025-07-26

Review Round 2  
2025-08-05

Review Round 3  
2025-08-15

Accepted  
2025-08-27

Conflict of Interest  
None

Funding  
Nil

Ethical Approval  
Not required

Plagiarism X-checker  
11.58

Note



© 2025 by Chaudhary M, Goyal M, Mehta C and Published by Maharshi Charaka Ayurveda Organization. This is an Open Access article licensed under a Creative Commons Attribution 4.0 International License <https://creativecommons.org/licenses/by/4.0/> unported [CC BY 4.0].



## Introduction

Multiple Sclerosis (MS) is a chronic, immune-mediated neurological disorder of the central nervous system (CNS), characterized by inflammation, demyelination, and neurodegeneration. It occurs when the immune system mistakenly attacks the myelin sheath, resulting in impaired nerve conduction and progressive neurological dysfunction. MS presents with a wide range of clinical manifestations, including sensory disturbances, motor weakness, optic neuritis, fatigue, and cognitive impairment.[1]

The disease is classified into various clinical types, such as Relapsing-Remitting MS (RRMS), Primary Progressive MS (PPMS), and Secondary Progressive MS (SPMS). Diagnosis is established based on clinical evaluation, magnetic resonance imaging (MRI) showing demyelinating lesions in the white matter, cerebrospinal fluid (CSF) analysis revealing oligoclonal bands, and evoked potential studies.[2]

Globally, MS affects approximately 2.8 million individuals, with a higher prevalence among women and in temperate climates. It is a leading cause of disability among young adults and significantly affects quality of life and functional independence. Due to its chronic and progressive nature and the absence of a definitive cure, long-term management strategies are essential. These include immunomodulatory therapies, neurorehabilitation, and lifestyle modifications.[3]

The importance of MS lies in the necessity for early diagnosis, comprehensive treatment, and integrative approaches. *Ayurveda* offers a holistic perspective, potentially contributing through neuroprotective effects, immune modulation, and symptomatic relief. From an Ayurvedic perspective, MS is not described explicitly in classical texts, its clinical manifestations can be interpreted through the framework of conditions such as *Kaphavṛta Vyana Vata*, *Avaranajanya Vata Vyadhi*, and *Majja Dhatu Kṣhaya*. [4]

The core pathogenesis involves the obstruction (*Avaraṇa*) of *Vyana Vata* by *Kapha Dosha*, leading to impairment in sensory and motor functions. This is further compounded by the depletion of *Majja Dhatu*, which weakens the structural and functional integrity of the nervous system.

The disease process primarily affects the *Majjavaha* and *Rasavaha Srotas*, resulting in a progressive neuromuscular decline marked by symptoms such as muscle weakness, stiffness, fatigue, and impaired coordination. [5]

## Case Report

A 54-year-old female homemaker presented with complaints of pain and weakness on right side of her body, along with discomfort in right ocular region, persisting for past one year. On further inquiry, patient reported that approximately two years ago, she experienced fever, right-sided body weakness, diplopia in right eye, and headache localized over right temporal region. She consulted an allopathic physician at that time and was diagnosed with Multiple Sclerosis. She was started on prednisolone along with supportive medications, which she continued for one year. This treatment resulted in improvement in most symptoms, except for persistent right-sided weakness. Over past year, she has continued to experience right-sided body weakness, now accompanied by pain in same region and persistent discomfort in right ocular area. The patient has presented to *Ayurvedic* hospital seeking further management for her persistent symptoms. She was on medication, including tab prednisolones 5 mg twice day, tab amitriptyline 25 mg twice day and tab famotidine 40 mg twice day. She had no history of hypertension, liver disorders, or significant family medical history.

### Clinical findings

On general examination, there was no pallor, icterus, cyanosis, clubbing, lymphadenopathy, or oedema. The blood pressure was 130/80 mm Hg, and pulse was 72 beat per minute (feeble and regular). The BMI was 26.5 kg/m<sup>2</sup>.

*Ashtavidha Pariksha* (~eight-fold examination of patient) was done, which revealed *Nadi* (~pulse) *Pitta-Vata Pradhana*, *Mootra Pravriti* (~urination) 3-4 time/day, once at night time, dark yellowish in colour, *Mala pravriti* (~bowel habit) once a day, hard and unsatisfactory. *Jihwa* (~tongue) was whitish and coated, *Madhyama Aakriti* (~mesomorph).

On systemic examination, respiratory examination revealed bilateral equal air entry with no added sounds. Cardio-vascular examination revealed normal heart sound without murmurs.

In gastro-intestinal examination, umbilicus centrally located and there was no tenderness on palpation. The patient was conscious and oriented to time, place and person. Cranial nerve examination intact, except optic nerve in which right eye was unable to do adduction movement.

### Diagnostic assessment

Chronic demyelination in periventricular and frontal-parietal lobe white matter, suggestive of Multiple sclerosis. On basis of clinical feature and MRI finding it is diagnosed as a case of multiple sclerosis. The SF-36 health survey[6], Berg Balance Scale[7], and Functional Assessment of Multiple Sclerosis (FAMS) [8] score were utilized to evaluate the effect of therapy on overall health status, balance, and disease-specific quality of life in this patient.

### Timeline

Detailed timeline of events is illustrated in table 1.

**Table 1: Timeline**

Time periods	Event
2nd March, 2022	1st episode of Multiple sclerosis (fever, headache, diplopia, weakness in B/L lower leg, pain and weakness in right side of the body)
4th March, 2022	MRI brain showed primary demyelinating lesion with B/L optic neuropathy
5th March, 2022	VEP scan and eye scan report normal, no possibility of optic neuropathy
6th March, 2022	Diagnosed as Multiple sclerosis and started allopathy Rx
March 2022 to December 2023	Diplopia and headache not present but generalized weakness persist, patients on allopathy Rx (Tab prednisolone and Tab. Amitriptyline hydrochloride)
Jan, 2024	Generalized weakness, pain and weakness on right side of the body again started
2 Jan, 2024	Admitted at Kayachikitsa indoor patient department, ITRA, Jamnagar
03 Jan – 08 Jan 2024	Deepana-Pachana with Chitrakadi Vati and Eranda Bhrishta Haritaki for 5 days.
09 Jan – 24 Jan 2024	Yapana Basti administered daily for 16 days
26 Jan – 01 Feb 2024	Nasya Karma with Kshirabala Taila for 7 days in increasing dosage.
02 Feb – 02 May 2024	Shamana Chikitsa – Phase I with internal medications continued for 3 months.
03 May – 19 May 2024	Second cycle of Yapana Basti and Nasya karma.
20 May – 20 Aug 2024	Shamana chikitsa – Phase II continued for another 3 months.
02 Sept 2024	Repeat MRI showed no progression of demyelination.
Sept 2024	Final follow-up: Allopathic medications stopped; complete resolution of symptoms; no adverse effects reported.

### Therapeutic intervention

The treatment protocol was systematically planned following a thorough assessment of the patient's condition and after obtaining informed consent. The intervention began with *Deepana-Pachana* therapy to enhance digestive function and correct metabolic imbalance. For this, *Chitrakadi Vati* (2 tablets, three times daily) was administered with lukewarm water before lunch and dinner, along with *Eranda Bhrishta Haritaki* (5 g) taken with lukewarm water one hour before bedtime for the first five days.

Following this preparatory phase, the patient underwent *Yapana Basti* for 16 days, followed by *Marsha Nasya* with *Kshirabala Taila* for 7 days. Thereafter, *Shamana Chikitsa* (palliative management) was continued for three months. After this phase, the same sequence of *Yapana Basti* and *Nasya* was repeated, followed again by a three-month course of *Shamana Chikitsa*. This cyclic therapeutic approach was adopted to maintain long-term efficacy and provide sustained symptomatic relief.

The details of the treatment were mentioned in table no. 2.

**Table 2: Details of the treatment**

Intervention	Composition and Method of Administration	Duration	Treatment Period
Yapana Basti	Administered as a medicated enema containing: Madhu (Honey) - 30 ml Saindhava Lavana (Rock Salt) - 5 g Go-Ghrita (Cow Ghee) - 30 ml Bala Taila - 30 ml Putoyavanyadi Kalka - 20 g Kshira Kashaya (Milk decoction) of Ashwagandha, Bala, Guduchi, Yashtimadhu, and Shatavari - 250 ml	16 days	09 January 2024 – 24 January 2024
Nasya Karma	Marsha Nasya performed with Kshirabala Taila, administered in increasing dosage pattern: 2–4–6–8–10–12–14 drops over consecutive days.	7 days	26 January 2024 – 01 February 2024
Shamana Chikitsa	Internal medication regimen included: 1. Dashamoola Kwatha - 20 ml, twice daily on an empty stomach 2. Yogaraja Guggulu - 2 tablets, thrice daily after meals with lukewarm water 3. Eranda Bhrishta Haritaki - 5 g at bedtime with lukewarm water 4. Ashwagandha Churna - 2 g + Bala Churna - 1 g + Pippalimoola - 500 mg + Vatavidhvamsa Rasa - 125 mg, twice daily with lukewarm water	3 months	02 February 2024 – 02 May 2024

## Follow up and outcome

At the time of discharge, the patient was instructed to follow a prescribed oral medication regimen in the outpatient setting and scheduled for weekly follow-up visits. The patient's progress was assessed at three points: prior to the initiation of *Ayurvedic* treatment, at discharge, and after six months of treatment. After seven months of treatment the patient experienced complete resolution of symptoms such as pain and weakness on right side of the body along with pain in the right ocular region. Allopathic medications were gradually discontinued during the course of treatment. There was no adverse drug's reaction during treatment. Details documented in Table No. 3.

**Table 3: Details of outcome of the treatment**

Parameter	Before treatment	After treatment
Generalized weakness	+4	+1
Pain and weakness at right side of the body	VAS – 5	VAS- 1
Pain at right eye region (retro – orbital region)	+2	0
Accommodation reflex in rt eye	Unable to perform addition	Able to do
FAMS scale	150	160
Berg balance scale	50	56
SF – 36	90	95
MRI brain	Chronic demyelination in periventricular and frontal- parietal lobe white matter, suggestive of Multiple sclerosis	Same as previous, no further progression

## Discussion

### Discussion on disease pathology

In this case, the initial pathology began with *Kaphavrita Vyana Vata*, wherein the vitiated *Kapha Dosha* obstructed the normal functioning of *Vyana Vata*. This *Avarana* led to symptoms such as right-sided pain, motor dysfunction, and ocular disturbances, reflecting *Vata-Kapha Dushti* in the *Urdhva Sharira* and particularly the involvement of *Majjavaha* and *Rasavaha Srotas*. Over time, the persistent *Avarana* not only disturbed the free movement of *Vata* but also impaired the *Dhatu Poshana* (~nourishment of tissues) process by causing *Srotorodha* (~channel obstruction).

As per *Ayurvedic* principles, such chronic obstruction of *Vata*, when unrelieved, results in *Vata Prakopa* and eventually leads to *Dhatu Kshaya*. In this case, the progressive loss of neuromuscular strength and the MRI-confirmed demyelination correlate with *Majja Dhatu Kshaya*, particularly in the context of long-standing *Vata* aggravation. This progression from *Avarana* to aggravated *Vata*, culminating in *Dhatu Kshaya*, is consistent with classical *Ayurvedic* principles, which describe unresolved *Avarana* as a key factor contributing to impaired tissue nourishment and subsequent degeneration over time. [9]

### Discussion on treatment

*Agnidipana* (~ stimulation of digestion): *Chitrakadi vati* possesses *Katurasa*(~pungent taste), *Usnavirya* (~ hot potency), and the qualities of *Laghu* (~lightness) and *Ruksha*(~Dryness), which support *Agnidipana* and *Aam Pachana* (~detoxification by eliminating undigested toxins).[10] *Eranda bhrishta haritaki* was administered for its *Mriduvirechaka* (~mild laxative) effect. [11] *Yapana Basti*, indicated for all seasons, is valued for its *Balya* (~strengthening), *Rasayana* (~rejuvenative), and *Vṛṣya* (~vitalizing) effects. Its formulation supports *Dhatu Poshana*, especially of *Majja Dhatu*, which is functionally associated with the central nervous system in *Ayurveda*. *Yapana Basti* offers nourishment and regeneration through ingredients like *Ksheera*, *Ghrta*, *Madhu*, and *Pippali*. These components enhance strength, improve neurological function, and address *Dhatu Kshaya*. [12]

*Nasya* with *Kshirabala Taila* effectively pacifies *Vata dosha* and enhances cerebral circulation through the vascular pathway. This action may aid in preventing demyelination, reducing neuroinflammation, and supporting the maintenance of cognitive functions. The unctuous and nourishing qualities of *Kshirabala Taila*, combined with the trans nasal delivery method, facilitate targeted benefits to the brain and central nervous system, making it a valuable intervention in conditions involving *Majja Kshaya* and neurodegeneration, such as Multiple Sclerosis. [13]

*Dashamoola Kwatha* is effective in the management of *Kaphavṛta Vyana Vata* associated with *Majja kshaya* due to its *Tikta* and *Kashaya Rasa*, *Ushṇa virya*, *Laghu* and *Ruksha Guna*, which help in alleviating *Srotorodha*. [14]

Additionally, it supports *Ama pachana* thereby improving circulation and nerve function. By nourishing and supporting *Majjā Dhātu*, it becomes effective in managing symptoms such as pain, stiffness, and sensory disturbances commonly seen in neurodegenerative conditions. *Yogaraja Guggalu* is *Vedanasthapaka* and *Vatahara Karma*.<sup>[15]</sup> *Ashwagandha* (*Withania somnifera* Linn.) possesses significant antioxidant and neuroprotective properties, making it highly relevant in the management of neurodegenerative. It supports muscle strength, stimulates regenerative processes, and modulates the hypothalamic-pituitary-adrenal (HPA) axis, leading to reduced cortisol levels and enhanced stress resilience.<sup>[16]</sup> These actions contribute to the alleviation of fatigue, muscle weakness, and inflammatory responses commonly observed in MS. *Bala* (*Sida cordifolia* Linn.), characterized by *Madhura Rasa*, *Shita Virya*, and *Madhura Vipaka*, exhibits *Balya* and *Bṛmhaṇa* properties. Its anti-inflammatory and neuroprotective effects support the reduction of neural inflammation and promote the regeneration of *Majja Dhatu*.<sup>[17]</sup> *Pippali Moola* possesses *Katu Rasa* (~pungent taste), *Laghu* and *Tikṣṇa Guna*, *Uṣṇa Virya* (~hot potency), *Madhura Vipaka*, and *Kaphavatahara* property. Due to these properties, it acts as *Dipana*, *Pachana*, and *Srotoshodhaka*,<sup>[18]</sup> thereby improving circulation and neural communication. Piperine, the active constituent of *Piper longum*, has demonstrated potential to promote remyelination and cognitive recovery in hippocampal demyelination through its antioxidant, anti-inflammatory, and neuroprotective mechanisms.<sup>[19]</sup> Additionally, classical formulations like *Vatavidhvansa Rasa*, comprising herbs with *Katu-Tikta Rasa*, *Uṣṇa Virya*, and *Vata-Kaphahara* properties, are traditionally indicated in *Vatavyadhi* conditions. These formulations exhibit *Shoolapa-samana* (~analgesic), *Sothnashaka* (~anti-inflammatory), *Rasayana*, and *Bṛmhaṇa* actions. Collectively, these interventions help pacify aggravated *Vata dosha*, prevent *Dhatu Kṣhaya*, and support nervous system health in patients with Multiple Sclerosis exhibiting signs of *Majjā Kṣhaya*.<sup>[20]</sup>

### Clinical Assessment Interpretation

**SF-36 (Short Form Health Survey):** This scale evaluates overall health-related quality of life across eight domains, including physical functioning, vitality, and general health.

The post-treatment improvement in SF-36 scores reflects enhancement in both physical and mental well-being. This improvement signifies effective management of fatigue, weakness, and emotional stress, which are symptoms associated with chronic *Vata* vitiation resulting from *Avaraṇa* and progressive *Majja Dhatu Kṣhaya*.

**Berg Balance Scale (BBS):** The BBS assesses postural balance and risk of falls. The observed improvement in BBS scores after therapy suggests enhanced neuromuscular coordination and proprioceptive control, correlates with the correction of *Kaphavrita Vyana Vata* and the improved *Dhatu Poshana* through therapies such as *Yapana Basti*, *Nasya*, and *Rasayana* intervention.

**FAMS (Functional Assessment of Multiple Sclerosis):** This MS-specific tool evaluates mobility, symptoms, emotional status, and overall quality of life. The increase in FAMS score post-treatment reflects comprehensive functional recovery, which aligns with the effects of *Vatahara*, *Avaraṇa-Uddharana*, and *Majja-Prada Rasayana* therapies aimed at restoring *Dehabala*, *Satvabala*, and *Majja Dhatu* strength.

## Conclusion

This case report provides preliminary evidence on the potential efficacy of *Ayurvedic* treatments in managing and enhancing the quality of life for patients with Multiple sclerosis. Nevertheless, to validate its scientific benefits, additional research involving a larger sample size and longer duration is necessary.

### Declaration of the patient

Written patient consent was taken by the author before this case report was published in any print or online journal. The parents and patient were informed that her name and initials would not be published, and reasonable efforts would be made to conceal her identity. However, complete anonymity cannot be guaranteed.

## References

1. Cree BAC, Hauser SL, editors. Chapter 192: Multiple sclerosis. In: Harrison's Manual of Medicine. 20th ed. New York: McGraw Hill; 2020. p. 432–40 [Crossref][PubMed][Google Scholar]

2. Haslett CR, Chilvers ER, Boon NA, Colledge NR, Hunter JAA, editors. Multiple sclerosis. In: Davidson's Principles and Practice of Medicine. 19th ed. Edinburgh: Churchill Livingstone; 2002. p. 1169–72 [Crossref][PubMed][Google Scholar]
3. Multiple Sclerosis International Federation. Atlas of MS 2020: Mapping Multiple Sclerosis Around the World. London: MSIF; 2020. . [Crossref][PubMed][Google Scholar]
4. Shukla AV, Tripathi R, editors. Charak Samhita of Agnivesha, Chikitsa Sthana. Vol. II, Ch. 28, Ver. 228. Reprint ed. Delhi: Chaukhamba Sanskrita Pratishthan; 2017. p. 721 [Crossref][PubMed][Google Scholar]
5. Chidre S, Dhimdime M, Dhimdime S. Study of Majjadhatu in Madhumeha with special reference to diabetic neuropathy. Int Med Sci Acad Res [Internet]. 2019 [cited 2025 Jun 25]. Available from: [Article][Crossref][PubMed][Google Scholar]
6. Ware JE Jr, Sherbourne CD. The MOS 36 Item Short Form Health Survey (SF-36). I. Conceptual framework and item selection. Med Care. 1992;30(6):473–83 [Crossref][PubMed][Google Scholar]
7. Berg KO, Wood-Dauphinee SL, Williams JI, Gayton D. Measuring balance in the elderly: preliminary development of an instrument. Physiother Can. 1989;41(6):304–11. [Crossref][PubMed][Google Scholar]
8. Cella DF, Dineen K, Arnason B, Reder A, Webster KA, Karabatsos G, et al. Validation of the Functional Assessment of Multiple Sclerosis quality of life instrument. Neurology. 1996;47(1):129–39. [Crossref][PubMed][Google Scholar]
9. Shukla AV, Tripathi R, editors. Charak Samhita of Agnivesha, Siddhi Sthana. Vol. II, Ch. 28, Ver. 58–60. Reprint ed. Delhi: Chaukhamba Sanskrita Pratishthan; 2017. p. 699 [Crossref][PubMed][Google Scholar]
10. Shukla AV, Tripathi R, editors. Charak Samhita of Agnivesha, Siddhi Sthana. Vol. II, Ch. 15, Ver. 96–97. Reprint ed. Delhi: Chaukhamba Sanskrita Pratishthan; 2017. p. 374 [Crossref][PubMed][Google Scholar]
11. Misra SB, Vaisya RR, editors. Bhavprakasa Nighantu of Sribhav Misra. Vol. II, Ch. 1 (Haritkyadivarga), Ver. 53–58. Varanasi: Chaukhamba Sanskrita Bhawan; 2020. p. 208 [Crossref][PubMed][Google Scholar]
12. Shukla AV, Tripathi R, editors. Charak Samhita of Agnivesha, Siddhi Sthana. Vol. II, Ch. 12, Ver. 15–16. Reprint ed. Delhi: Chaukhamba Sanskrita Pratishthan; 2017. p. 981 [Crossref][PubMed][Google Scholar]
13. Vyas SD, et al. Nasya Karma Karmukatva – A review article. Int Ayurvedic Med J. 2020;8(5):3549–52. [Crossref][PubMed][Google Scholar]
14. Bramhanand D, editor. Sarangadhara Samhita of Pandit Sarangadharacharya. Madhyama Khand, Ch. 7, Ver. 28–31. Varanasi: Chaukhamba Sanskrita Bhawan; 2020. p. 93 [Crossref][PubMed][Google Scholar]
15. Bramhanand D, editor. Sarangadhara Samhita of Pandit Sarangadharacharya. Madhyama Khand, Ch. 7 (Vataka Kalpana), Ver. 56–69. Varanasi: Chaukhamba Sanskrita Bhawan; 2020. p. 135 [Crossref][PubMed][Google Scholar]
16. Kuboyama T, Tohda C, Komatsu K. Effects of Ashwagandha (roots of Withania somnifera) on neurodegenerative diseases. Biol Pharm Bull. 2014;37(6):892–7. [Crossref][PubMed][Google Scholar]
17. Sutradhar RK, Rahman AKM, Ahmad M, et al. Bioactive alkaloid from Sida cordifolia Linn. with analgesic and anti-inflammatory activities. Iran J Pharmacol Ther. 2006;5:175–8 [Crossref][PubMed][Google Scholar]
18. Misra SB, Vaisya RL, editors. Bhavprakasa Nighantu of Sribhav Misra, Haritakyadi Varga. Vol. II, Ch. 1, Ver. 64–65. Reprint ed. Varanasi: Chaukhamba Sanskrita Bhawan; 2020. p. 310 [Crossref][PubMed][Google Scholar]
19. Roshanbakhsh H, Salmani ME, Dehghan S, Nazari A, Javan M, Pourabdolhossein F. Piperine ameliorated memory impairment and myelin damage in lysolecithin-induced hippocampal demyelination. Life Sci. 2020;253:117671. [Crossref][PubMed][Google Scholar]

20. Shastri VL, editor. Yogratnakara Vidhyotini Hindi Teeka, Vatavyadhi Chikitsa. Reprint ed. Varanasi: Chaukhamba Sanskrita Bhawan; 2022. p. 468–9  
*[Crossref][PubMed][Google Scholar]*

Disclaimer / Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of Journals and/or the editor(s). Journals and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.