WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
Coden USA: WJPRAP Impact Factor 8.453
Volume 15, Issue 3, 1154-1165. Case Study ISSN 2277–7105

THERAPEUTIC EFFECT OF DASHAMOOLA KASHAYA KAVALA AND SNAIHIKA DHUMAPANA WITH HARIDRADI VARTI IN DANTAHARSHA W.S.R. DENTIN HYPERSENSITIVITY: A CASE STUDY

Dr. Sharon K. Manohar[1], Dr. Naveen B. S.*[2], Dr. Geethakumari B.[3], Dr. Krishnan Namboodiri[4], Dr. Laxmi M. Naik[5], Dr. Swathi A. C.[6]

[1]Final Year PG Scholar, Department of PG Studies in Shalakya Tantra, Sri Sri College of Ayurvedic Science and Research, Bengaluru.
[2]Professor and HOD, Department of PG Studies in Shalakya Tantra, Sri Sri College of Ayurvedic Science and Research, Bengaluru.
[3]Professor, Department of PG Studies in Shalakya Tantra, Sri Sri College of Ayurvedic Science and Research, Bengaluru.
[4]Associate Professor, Department of PG Studies in Shalakya Tantra, Sri Sri College of Ayurvedic Science and Research, Bengaluru.
[5,6]Assistant Professor, Department of PG Studies in Shalakya Tantra, Sri Sri College of Ayurvedic Science and Research, Bengaluru.

Article Received on 30 Dec. 2025,
Article Revised on 20 Jan. 2026,
Article Published on 01 Feb. 2026

https://doi.org/10.5281/zenodo.18438225

***Corresponding Author**

Dr. Naveen B. S.

Professor and HOD, Department of PG Studies in Shalakya Tantra, Sri Sri College of Ayurvedic Science and Research, Bengaluru.

How to cite this Article: Dr. Sharon K. Manohar1, Dr. Naveen B. S.*2, Dr. Geethakumari B.3, Dr. Krishnan Namboodiri4, Dr. Laxmi M. Naik5, Dr. Swathi A. C.6. (2026). Therapeutic Effect Of Dashamoola Kashaya Kavala And Snaihika Dhumapana With Haridradi Varti In Dantaharsha W.S.R. Dentin Hypersensitivity: A Case Study. World Journal of Pharmaceutical Research, 15(3), 1154–1165.

ABSTRACT

Introduction: *Danthaharsha* is one of the eight *Dantarogas* categorized under *Mukharogas*. It is characterized by pain in response to stimuli such as *Amla* (Sour), *Sheeta* (Cold) *Ahara* (Food) or *Dasana* (Touch). The *Lakshanas* of *Dantaharsha* show a close correlation with the signs and symptoms of dentin hypersensitivity, where the pain arises due to exposure of dentin when contact with cold or hot. This condition affects a significant portion of the population and often impacts quality of life due to discomfort and dietary restrictions with the prevalence rate of 20% in Karnataka. **Methodology:** A combination of *Kavala* (Gargling) with *Dashamoola Kashaya* and *Snaihika Dhumapana* (Medicated smoke inhalation) with *Haridradi Varti* is proposed as an effective treatment for managing *Danthaharsha*. **Results**: Subjective assessment using the Visual Analog Scale (VAS) in this case demonstrated a decrease in pain score from 6 (moderate pain) to 3 (mild pain)

after one day, with maintained improvement during subsequent follow-ups. **Discussion***:* In this study an effort has been taken to explore the use of *Kavala* and *Dhumapana* in managing *Danthaharsha*. It reviews the patient's symptoms, treatment protocol, and outcomes, highlighting the effectiveness of *Kavala* and *Dhumapana* in providing significant pain relief according to Visual Analog Scale and improving oral health. *Kavala* involves swishing medicated oils or herbal decoctions in the mouth, which helps to strengthen the gums, protect the teeth and reduce the sensitivity. This practice has been noted to reduce oral inflammation and promote overall oral health. *Dhumapana*, involves the inhalation of medicinal smoke from drugs like *Haridra* (Turmeric), *Shunti* (Ginger) and *Gritha* (Ghee*),* which is used to reduce oral sensitivity, clear the sinuses, and aid in reducing oral discomfort.

KEYWORDS: *Danthaharsha*, Dentin hypersensitivity, *Dashamoola Kashaya*, *Kavala*, *Dhumapana*, *Haridradi Varti*.

INTRODUCTION

Dantaharsha is one of the eight *Dantarogas* which comes under *Mukharogas* explained by Acharya Sushruta. *Dantaharsha* is a condition where *Danta* (Teeth) is sensitive to *Sheeta* (Cold*), Amla* (Sour) *Ahara* (Food) or *Sparsha* (any other kind of touch). [1] It can be compared with the signs and symptoms of Dentin hypersensitivity (DH). Dentin hypersensitivity is dental pain, which is sharp in character and of short duration, arising from exposed dentin surfaces in response to stimuli. Typically thermal, evaporative, tactile, osmotic, chemical or electrical; and which cannot be attributed to any other dental disease. 20% of the general population in Karnataka is suffering from DH because of poor oral hygiene.[2] The most common cause of DH is poor oral hygiene that is characterized by short-lasting, sharp pain.[3]

Kavala is a *Sthanika Chikista,* which involves swishing *Sneha* or *Kashaya* inside the oral cavity and throat, this practice has been associated with maintenance of oral hygiene and supportive care of gingival tissues, and it is considered to have a potential role in reducing oral discomfort and sensitivity.

Kavala with *Dashamoola Kashaya* may contribute to the reduction of dentinal hypersensitivity by providing a protective effect over exposed dentin, which may limit fluid movement within dentinal tubules and reduce nerve stimulation.

Inhaling medicated smoke through nose and exhaling mouth is called *Dhumapana*. The ingredients for the *Varti* are *Haridra, Shunti* and *Gritha.* The anti-bacterial property possessed by the ingredients reduce inflammation in the oral cavity. There is limited documented clinical evidence evaluating combined *Kavala* and *Snaihika Dhumapana* in *Dantaharsha*, hence this case study.

MATERIALS AND METHOD

Patient details

- NAME – X.Y.Z
- AGE – 23 years
- Gender – Female
- Address – Bengaluru
- Occupation – Student

Chief complaint

Patient complaints sudden, sharp pain in her teeth when consuming hot, cold drinks, and lemon juice for the past 5 years.

HISTORY OF PRESENT ILLNESS

The patient was apparently asymptomatic five years ago. Gradually, she developed dental pain on consuming hot and cold foods and drinks, especially sour substances such as lemon juice. In 2022, she consulted a dentist, was diagnosed with dental caries, and an amalgam restoration was placed in the lower right first molar (46).

Subsequently, in 2024, she developed dental caries in the lower left first molar (36), for which a composite restoration was done.

About five months after the restoration, the patient again developed similar complaints of dental pain, which was sharp and short-lasting in nature. Over the past two months, the intensity of pain gradually increased, prompting her to seek further treatment. She reported to the OPD of the Department of Shalakya Tantra at Sri Sri Ayurveda Hospital on 4th October 2024.

TIMELINE

The detailed timeline of this case is shown in Table no 1.

Table no 1: Case Timeline.

Date	Event / Clinical Details
2019	Developed dental cavities with pain on consuming hot and cold foods/drinks, especially lemon juice.
2022	Consulted a dentist; amalgam filling placed in the lower left first molar.
2024	Composite filling was done in the lower right first molar.
2024 June	Reappearance of dental pain; sharp and short-lasting.
2024 August	Intensity of pain increased.
4th October 2024	Reported to Shalakya Tantra OPD, Sri Sri Ayurveda Hospital.
5th–11th October 2024	Treatment: *Dashamoola Kashaya Kavala* and *Haridradi Snaihika Dhumapana.*
12th October 2024	Post-treatment assessment.
19th October 2024	Follow-up visit.

CONSENT - Written and informed onsent obtained.

EXAMINATION

General Examinations

General examination has been mentioned in Table no 2.

Sr. No	Table no 2: General Examination	
1.	BP	130/80 mm hg
2.	G.C.	moderate, afebrile
3.	RS.	RR: 18/min, normal bronchovesicular breath sounds
4.	CVS.	S1, S2 heard. No added sounds
5.	CNS.	Conscious, oriented to time, place, and person
6.	Built	Moderate
7.	Height	5 feet, 3 inches
8.	Weight	52 kg
9.	BMI	20.3 kg/m^2

LOCAL EXAMINATION

Local examination has been mentioned in Table no 3 and Table no 4.

Table no. 3: Local Examination.

Extraoral examination:	No abnormality detected
Intraoral examination:	
Lips	Pink colour, Symmetrical, moist, with no cracks or ulcerations
Labial Mucosa	Wet, Shinny, without ulcers, pigmentation, or lesions
Tongue	No abnormality in size and shape, No swelling, No coating.
Buccal and Vestibular	Smooth, Shiny.

mucosa	
Hard palate, soft palate	Pink and firm with intact mucosa,
Gingiva and Alveolar mucosa	pink in colour, firm, and resilient, with no bleeding, recession, or inflammation..
Oropharynx	Pink and moist, with no swelling, congestion, exudates, or lesions

Table no. 4: Tooth Examination.

Colour	Pale yellow
Enamel	Smooth, hard, and intact with no surface defects
Shape	Anatomically well-formed crown
Alignment	Properly aligned within the dental arch
Mobility	Absent
Caries	Previously restored tooth with filling present Tooth no 36 and 46
Plaque	Absent
Calculus	Absent
Arrangement	Cusp-Fossa Occlusion

Pain- VAS -6(Sharp pain for a short duration)

Air blast test – Positive

TREATMENT

- *Dashamoola Kashaya Kavala* and *Snaihika Dhumapana* with *Haridradi Varti* were administered once daily in the morning, after *Danthadhavana*, for 7 days
- Approximately 30 ml of the lukewarm *Kashaya* is allowed to be gently swished within the oral cavity and throat until *Kaphapoorṇa Asyata* and *Netra–Ghraṇa Srava* are attained, as indicated by the appearance of secretions in the mouth, nose, and eyes.
- *Snaihika Dhumapana* - Inhale medicated smoke through nose and exhale via mouth.

MATERIAL AND METHODOLOGY

Pre-operative procedure

The materials required for the procedure, i.e., *Dashamoola Kashaya* and *Dhumapana Varti*, were arranged.

Poorva karma

The individual was made to sit comfortably in a room devoid of breeze and dust.

Pradhana karma

The individual was asked to keep the face slightly elevated and was advised to hold *Dashamoola Kashaya* in the mouth, is allowed to be gently swished within the oral cavity and throat until *Kaphapoorṇa Asyata* and *Netra–Ghraṇa Srava* are attained, as indicated by the appearance of secretions in the mouth, nose, and eyes.

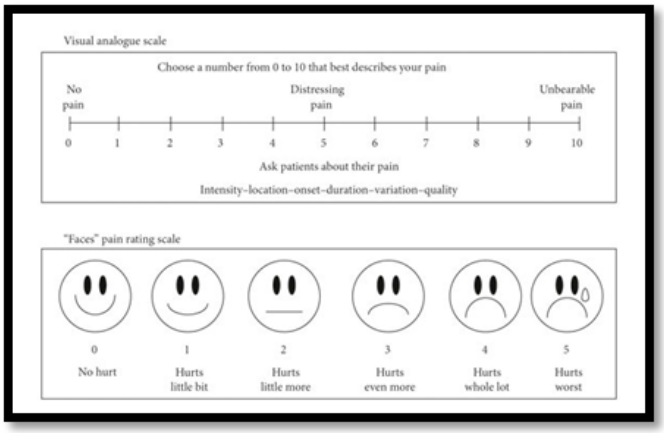
***Paschat karma*:** After spitting out the contents, mouth was cleaned with lukewarm water.

ASSESSMENT

The degree of pain in *Dantaharsha* was assessed using the Visual-Analogue scale before and after *Dashamoola Kavala* and *Snaihika Dhumapana* with *Haridradi Varti*. The following has been depicted below in Table 5.

Table 5: Vas Scale.

Assessment	Score on VAS
No Pain	0
Mild Pain	1 – 3
Moderate Pain	4 – 6
Severe Pain	7 – 9
Worst Possible Pain	10



RESULTS

Results are derived based on the favourable subjective scores on the Visual Analog Scale before and after intervention and during three follow-ups has been depicted below in Table 6. Due to single-case design, statistical analysis was not applicable.

Table 6: Results Based on VAS Scale.

Assessment	Score on VAS
Before Intervention (Day 0)	6
After Intervention (Day 8)	3
First Follow-Up (Day 15)	3
Second Follow-up (Day 30)	3

DISCUSSION

Dantaharsha has become an inescapable disease in current era, thus finding a remedy which is both fast in its therapeutic effect and even affordable is quite a coup. We can understand the effect of *Dashamoola Kashaya Kavala* by analysing the *Rujahara* action of *Dashamoola* and the advantage of *Kavala* as a local treatment.

Dashamoola Kashaya: *Dashamoola* is a group of ten herbs classified into two groups namely *Bruhat Panchamoola* and *Laghu Panchamoola*. Five drugs of *Bruhat panchamoola* are *Bilva, Patala, Agnimantha, Shyonaka, Gambhari* and *Laghu panchamoola* contains *Bruhati, Gokshura, Kantakari, Prishniparni, Shalaparni*. The *Dashamoola* is *Kapha Vatahara* in its action mainly considered for its *Shoolahara* property Acharya Charaka has mentioned the group as *Shoolahara Mahakashaya*.

Table no 7: *Bruhat Panchamoola.*

Drug	Botanical name	Family
Bilva	Aegle marmelos	Rutaceae
Agnimantha	Premna obtusifolia/ Clerodendrum phlomidis	Verbenaceae
Gambhari	Gmelina arborea	Verbenaceae
Shyonaka	Oroxylum indicum	Bignoniaceae
Patala	Stereospermum suaveolens	Bignoniaceae

Table no 8: *Laghu Panchamoola.*

Drug	Botanical name	Family
Prishniparni	Stereospermum suaveolens	Bignoniaceae
Shalaparni	Uraria picta	Fabaceae
Brihati	Solanum indicum	Solanaceae
Kantakari	Solanum xanthocarpum	Solanaceae
Gokshura	Tribulus terrestris	Zygophyllaceae

The analgesic property of drugs of *Dashamoola* has been studied extensively. Studies by Parekar et al. has shown anti-inflammatory activity of *Dashamoolarishta* by using cotton pellet induced granuloma and carrageenan induced rat paw edema models of inflammation.[4] This proves the local anti-inflammatory action of *Dashamoola*. This further also inhibits pain and acts as an analgesic.

Phytochemical actions of drugs of *Dashamoola*

Ingredients of *Dashamoola* like Flavanoids, Neuroprotective agents, Astringents are proven to have effect in reducing pain.

Table no 9: Phytochemical actions of drugs of *Dashamoola*.[5][6][7][8]9][10][11]

Flavonoid	Drug of *Dashamoola*	Key Actions
Quercetin	*Bilwa, Shyonaka*	Antioxidant, mast cell stabilizer, reduces pain mediators
Kaempferol	*Patala*	Anti-inflammatory, nerve desensitizer
Chrysin	*Gambhari*	Modulates pain transmission
Rutin	*Gokshura*	Capillary stabilizer, reduces nerve response
Apigenin	*Shalaparni*	Calms nerves, blocks prostaglandin pathways

Neuroprotective Agents

Quercetin, Apigenin, Lupeol: These agents block pain signal transmission at nerve endings and help reduce neural inflammation—a core mechanism behind alleviating dentine sensitivity.

Tannins and Catechins: Tighten dentin surface proteins and physically block tubules, reducing dentinal permeability and preventing pain-triggering fluid movement.

MODE OF ACTION OF KAVALA

Kavala performs both local and systemic effects. The mucous membrane of the buccal cavity serves as one of the local routes of drug administration. According to Ayurvedic principles of pharmacokinetics, by virtue of *Rasa*, drugs can produce their effects locally within the buccal cavity. This principle is effectively utilized in *Kavalagraha*.

The drug which is taken by the mouth is passed through the liver and then absorbed into the bloodstream (systemic circulation). But in other forms of drug administration, the drug by-passes the liver and directly entering the bloodstream and results in rapid onset of drug effect. By the *Kavala* the medicine directly absorbed in blood stream and act more locally then systemically. Also increased salivary secretions that dissolve the Ama (toxins like food

debris). The main function of salivary fluid is to maintain pH at the mucosal epithelial cell surface and the tooth surface. Normally mouth is a non-acidic or neutral. Unhealthy mouth is acidic. It indicates an oxygen-deprived environment, which puts our teeth at risk for demineralization and cavities. *Kavala* is an immediate solution for mouth acidity and which change the oral pH quickly into a safe zone. Also, *Kavala* increases the vascular permeability in the oral cavity. Therefore, the drugs get rapidly absorbed both locally and systemically. This can help to enhance the healing process of disease.[12]

Additionally, the temperature and potency (*Veerya*) of the drugs cause dilatation of blood vessels in the oral mucosa, facilitating the assimilation of active ingredients into the bloodstream. *Dashamoola* as a whole formulation cannot be considered under *Vyavayi Guna*, rather individual drug action is certain here. Drugs like *Shalaparni* and *Prishniparni* are explained to have *Vikasi Guna*. *Bilva*, *Agnimantha* and *Shyonaka* are *Vyavayi* in its action. This adds up in the *Rujahara Karma* of *Dashamoola Kashaya* administered as *Kavala* in *Dantaharsha*.

ACTIONS OF *SNAIHIKA DHUMAPANA*

Snaihika Dhumapana contains *Ghrita*, which is *Snigdha* and *Guru*, directly opposing *Ruksha* and *Laghu Guna* of *Vata Dosha*, thereby pacifying it. Phytochemical analysis of *Shunti* and *Haridra* shows both drugs possess potent antibacterial and anti-inflammatory properties, thereby minimizing local oral inflammation and microbial insults, a major contributor to hypersensitivity and tissue damage.

Shunti has *Katu Rasa* (pungent taste), *Ushna veerya* (hot potency), *Madhura Vipaka* and *Kaphavatashamaka* properties. The form used for *Dhumapana Dravya* is *Churna* and studies regarding *Shunti Churna* when analysed critically revealed the presence of alkaloids and flavonoids in abundance. Alkaloids act as nerve desensitizing agents and nerve conduction blockers ultimately acting as analgesics. Flavonoids – helps as an anti-microbial agent by inhibiting bacterial growth, aids in stabilising the collagen in dentine and reducing inflammation of pulp and periodontium.

Haridra was used in *Churna* form for *Dhumapana*. Phytochemical agents studied in *Haridra churna* revealed presence of Alkaloids, steroids and carbohydrates. All these components act effectively in reduction of inflammation and pain remission.

Ghrita – direct references from Charaka Sutrasthana says *Ghrita* is *Sarva Snehottama* and *Vata-Pittahara*. *Snigdha Guna* of *Ghrita* also helps in neutralizing the *Lekhana* effects of *Shunti* and *Haridra* combined.

MODE OF ACTION OF DHUMAPANA

Snaihika Dhumpana may reduce this *Danthaharsha* through the following plausible pathways:

1. Reduction of dentinal fluid movement (Hydrodynamic stabilization)

Snaihika Dhumpana contains fine, volatile, lipid-soluble phytochemicals that can penetrate superficial dentinal tubule orifices. These substances promote partial tubule narrowing or surface coating, which reduces tubule radius. Since dentinal fluid flow is proportional to the fourth power of tubule radius, even minimal narrowing leads to a marked reduction in fluid movement, thereby decreasing nerve stimulation.

2. Formation of a protective lipidic film over exposed dentin

In *Snaihika Dhumapana, Ghritha* based smoke deposits lipophilic components over exposed dentin.

This creates a thin hydrophobic layer that Limits outward dentinal fluid flow and reduces evaporative stimuli (air, cold). Functionally, this mimics modern tubule-occluding desensitizing agents.

3. Thermo-neuromodulatory effect on pulpal nerves

The *Ushṇa* nature of medicated smoke causes transient vasodilatation in pulpodentinal tissues this causes reduced excitability of mechanosensitive nerve endings. Warm stimuli are known to decrease outward fluid movement, unlike cold stimuli which exacerbate hypersensitivity.

4. Stabilization of odontoblast–nerve complex

Modern evidence suggests odontoblasts play an active role in dentin pain transmission. Constituents of *Snaihika Dhumapana* may exert a soothing effect on odontoblast processes, reducing mechanotransduction at the pulp–dentin border. This aligns with the concept of *Vata Shamana* at the level of *Suksma Srotas.*

CONCLUSION

This case study highlights the significant therapeutic benefits of combining *Dashamoola Kashaya Kavala* and *Snaihika Dhumapana* with *Haridradi varti* in the management of

Danthaharsha (Dentin hypersensitivity). The patient was suffering from sharp dental pain triggered by thermal and osmotic stimuli, experienced a marked reduction in pain severity following a week of daily intervention with both modalities.

Kavala with *Dashamoola Kashaya* establishes a physical and biochemical barrier over exposed dentin, diminishing the transmission of painful stimuli to nerve endings. The potent anti-inflammatory and antioxidant properties of its flavonoid-rich content not only reduce inflammation but also encourage remineralization and sealing of dentinal tubules. Similarly, *Snaihika Dhumapana*, utilizing herbs such as *Haridra* and *Shunti*, leverages antibacterial and analgesic effects to further mitigate oral sensitivity and promote overall mucosal health.

Subjective assessment using the Visual Analog Scale (VAS) in this case demonstrated a decrease in pain score from 6 (moderate pain) to 3 (mild pain) after one day, with maintained improvement during subsequent follow-ups. There were no adverse reactions reported, reinforcing the safety and tolerability of the combined regimen.

In summary, this integrated protocol provides an effective, non-invasive, and well-tolerated approach for rapid relief in dentin hypersensitivity, offering improvements in both oral comfort and quality of life. These findings suggest *Dashamoola Kashaya Kavala* and *Snaihika Dhumapana* with *Haridradi varti* represent promising and practical interventions for *Danthaharsha*, warranting larger clinical trials for further validation.

REFERENCES

1. Acharya JT, editor. Susrutha Samhita Nibandha Sangraha commentary of Dalhanacharya. Nidanasthana, MukharoganamNidanam, verse 30. Varanasi: Chaukhambha Krishnadas Academy, 2008; 332.
2. Haneet RK, Vandana LK. Prevalence of dentinal hypersensitivity and study of associated factors: a cross-sectional study based on the general dental population of Davangere, Karnataka, India — Int Dent J., 2016; 66(1): 49–57. https://pubmed.ncbi.nlm.nih.gov/26582076/
3. Odell EW. Dentin hypersensitivity. In: Odell EW, editor. *Clinical problem solving in dentistry*. 3rd ed. Edinburgh: Churchill Livingstone Elsevier, 2010; 168–170.
4. Parekar RR, Bolegave SS, Marathe PA, Rege NN. Experimental evaluation of analgesic, anti-inflammatory and anti-platelet potential of Dashamoola. *J Ayurveda Integr Med*., 2015; 6(1): 11-18.

5. Lubna Fatima, Arshiya Sultana, Saad Ahmed and Shabiya Sultana, Pharmacological activities of Tribulus terrestris linn: a systemic review. World journal of pharmacy and pharmaceutical sciences, 2015; 4(02): 136-150.
6. *Wang GF, Wu ZF, Wan L, Wang QT, Chen FM.* Influence of baicalin on the expression of receptor activator of nuclear factor-kappaB ligand in cultured human periodontal ligament cells. *Pharmacology*, 2006; 77(2): 71–7. doi:10.1159/000092853.
7. Kulkarni YA, Panjabi R, Patel V, Tawade A, Gokhale A. Effect of *Gmelina arborea* Roxb in experimentally induced inflammation and nociception. *J Ayurveda Integr Med*., Jul. 2013; 4(3): 152–7. doi:10.4103/0975-9476.118697. PMID: 24250144; PMCID: PMC3821189.
8. Guiraud P, Steiman R, Campos-Takaki GM, Seigle-Murandi F, Simeon de Buochberg M. Comparison of antibacterial and antifungal activities of lapachol and beta-lapachone. *Planta Med*., Aug. 1994; 60(4): 373–4. doi:10.1055/s-2006-959504. PMID:7938274.
9. Rodwattanagul S, Wongrattanakamon P, Chaichit S, Chittasupho C, Nimlamool W, Hennink WE, et al. Exploring the antioxidant, antiglycation, and anti-inflammatory potential of *Oroxylum indicum* stem bark extracts. *PLoS One*, Jun. 12, 2025; 20(6): e0325795. doi:10.1371/journal.pone.0325795.
10. Zhang X, Kumar P, Reddy CK, He F. Solasodine inhibits biofilm formation by *Enterococcus faecalis*. *J Antimicrob Chemother*, 2024; 79(4): 845–853. doi:10.1093/jac/dkab458.
11. Shojaee-Aliabadi S, Mosaddegh M, Zare-Jahromi M. Antimicrobial activities of *Tribulus terrestris* L. extracts on selected pathogenic microorganisms. *Eur J Integr Med*., 2023; 65: 102300.
12. Parmar H. Literature review: Dashmula Tail Gandusha in Dantaharsha. *Indian J Appl Res.*, 2020; 10(9): 1–2. doi:10.36106/ijar.