WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.453
Volume 14, Issue 4, 285-299. Review Article ISSN 2277–7105

INVESTIGATING THE THERAPEUTIC ROLE OF SHOOLAPRASHMANA AND VEDANASHTHAPANA MAHAKASHAYA DRAVYAS: A CRITICAL REVIEW

Dr. Deepti Patil[1*], Dr. Ajay Kumar K. A.[2] and Dr. Subrahmanya M.D.[3]

[1]Professor and HOD, Department of Dravyaguna, Rajeev Institute of Ayurvedic Medical Sciences and Research Centre, Hassan.

[2]Professors and HOD, Department of RSBK, Rajeev Institute of Ayurvedic Medical Sciences and Research Centre, Hassan.

[3]Assistant Professor, Department of Dravyaguna, Rajeev Institute of Ayurvedic Medical Sciences and Research Centre, Hassan.

Article Received on
10 January 2025,

Revised on 31 Jan. 2025,
Accepted on 20 Feb. 2025

DOI:10.20959/wjpr20254-35714

***Corresponding Author**
Dr. Deepti Patil
Professor and HOD,
Department of Dravyaguna,
Rajeev Institute of
Ayurvedic Medical Sciences
and Research Centre,
Hassan.

ABSTRACT

The therapeutic role of Shoolaprashamana and Vedanasthapana Mahakashaya Dravyas in pain management has been a topic of interest in Ayurvedic pharmacology. Acharya Charaka's classification of herbs into 50 Mahakashayas includes these two categories, both aimed at alleviating pain but with differing therapeutic focuses. Pain, a subjective sensory and emotional experience, is often linked to an imbalance in the Doshas—Vata, Pitta, and Kapha. In Ayurveda, pain is not merely a symptom to be suppressed but is considered a manifestation of deeper disharmony within the body and mind. The Shoolaprashamana Mahakashaya primarily targets pain caused by Vata Dosha imbalances, such as sharp, radiating, or spasmodic pain, while the Vedanasthapana Mahakashaya addresses pain linked to combined Dosha imbalances and systemic disorders.This critical review examines the pharmacodynamics, therapeutic actions, and chemical constituents of the herbs included in these Mahakashayas. The present review aims to bridge classical Ayurvedic knowledge with modern scientific understanding, shedding light on the analgesic potential of these herbs in treating acute, chronic, and neuropathic pain. The article includes a detailed comparison of the plants in both Mahakashayas, highlighting their anti-inflammatory, analgesic, antispasmodic, and

antiulcerogenic properties. Key ingredients such as Pippali (*Piper longum*), Chitrak (*Plumbago zeylanica*), Shunthi (*Zingiber officinale*), and Shala (*Shorea robusta*) are discussed for their significant roles in pain relief. By evaluating the pharmacological actions, therapeutic applications, and chemical properties of these herbs, this review provides insights into their effectiveness in modern pain management practices while maintaining the holistic approach of Ayurveda.

KEYWORDS: Shoolaprashamana, Vedanasthapana, Mahakashayas, Ayurvedic pharmacology, Vata Dosha, Pharmacodynamics.

1. INTRODUCTION

Acharya Charaka classified herbs into 50 Mahakashayas, grouping ten drugs under each based on similar pharmacological actions. Among these, Shoolaprashamana Mahakashaya and Vedanasthapana Mahakashaya are primarily indicated for pain management, but they differ in their therapeutic focus and application. Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage.[1] It is subjective and varies among individuals. The Ayurvedic perspective on pain is deeply rooted in its holistic approach to health and well-being. It emphasizes treating the root cause of pain rather than merely suppressing symptoms. It also focuses on enhancing the body's innate healing ability.

In Ayurveda, pain is described using various terms depending on its type, cause, and location. Some common names for pain include; Shoola, Vedana,Peeda and Ruja.[2]

The Shoolaprashamana Mahakashaya and Vedanasthapana Mahakashaya are specifically formulated to address pain. While both focus on pain relief, their underlying principles, pharmacodynamics, and indications show notable differences. The Mode of Action is primarily targets pain caused by Vata Dosha imbalance[3], which is the main cause of sharp, radiating, or spasmodic pain or Addresses pain caused by combined Dosha imbalances, especially when pain is linked to inflammation, toxins (Ama), or systemic disorders.

2. MATERIALS AND METHODS

The content of this article has been compiled from various Ayurvedic textbooks and credible online sources such as Google Scholar, ResearchGate, PubMed, and other available articles. This is due to the limited work conducted on the comparative analysis of Shoolaprashamana and Vedanasthapana Mahakashayas, particularly in the domain of Ayurvedic analgesics.

This review primarily focuses on modern published research studies that explore the analgesic action of the Aushadh Dravyas (medicinal herbs) included in Shoolaprashamana and Vedanasthapana Mahakashayas. It aims to bridge the gap between classical Ayurvedic knowledge and contemporary scientific validation, providing insights into their pharmacological potential in pain management.

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage. It is subjective and varies among individuals.

Pain can be classified as, acute pain which is Short-term pain that serves as a warning signal for injury or illness. Chronic pain is lasting beyond the usual healing time, typically more than 3-6 months. Neuropathic pain is caused by damage to the nervous system and nociceptive pain which results from tissue injury or inflammation.[4]

Pain is transmitted through specialized nerve pathways involving nociceptors, spinal cord, and brain, including areas like the thalamus and cortex. Pain is assessed using scales like the Numerical Rating Scale (NRS) or Visual Analog Scale (VAS).[5] Pain affects physical, emotional, and social aspects of a patient's life. It may lead to reduced mobility, anxiety, depression, or sleep disturbances. Clinically pain management is done using analgesics like NSAIDs, opioids, and adjuvant medications.[6]

The Ayurvedic perspective on pain is deeply rooted in its holistic approach to health and well-being.

The Definition of Pain, or "Shoola," is viewed as a manifestation of imbalance in the body's Doshas—Vata, Pitta, and Kapha. Pain indicates disharmony within the body and mind.

2.1 Doshas and Pain

2.1.1. Vata: Governs movement and nervous system function. Its imbalance often causes sharp, throbbing, or radiating pain (e.g., arthritis, neuralgia).

2.1.2. Pitta: Regulates metabolism and inflammation. Its imbalance leads to burning or inflammatory pain (e.g., gastritis, headaches).

2.1.3. Kapha: Associated with stability and lubrication. Imbalances result in heavy, dull, or congestive pain (e.g., joint stiffness, sinusitis).

2.2 Causes of Pain (Nidana)

Improper diet and lifestyle which causes imbalance in the doshas, accumulation of Ama (toxins) due to weak digestion and trauma, stress, or environmental factors.

2.3 Types of Pain in Ayurveda

Ayurveda classifies pain based on its origin and symptoms, including: **Adhyatmika** (internal pain): Arises from imbalances in the body or mind. **Adhibhautika** (external pain): Results from external injuries or trauma. **Adhidaivika** (spiritual pain): Associated with karmic or metaphysical factors.

Pain is described using various terms depending on its type, cause, and location. Some common names for pain in Ayurveda include.

1. Shoola (□ □ □): A general term for pain, often indicating sharp or acute pain.

Vatika Shoola: Pain caused by Vata Dosha imbalance.

Pittaja Shoola: Pain due to Pitta Dosha imbalance.

Kaphaja Shoola: Pain related to Kapha Dosha imbalance.

2. Vedana (□ □ □ □): A broader term for sensation or pain often used to describe discomfort or uneasiness.
3. Ruja (□ □ □): Refers to pain or suffering, often used in association with specific body parts (e.g., Kati Ruja for back pain).
4. Peeda (□ □ □ □): Denotes distress or pain, both physical and mental.
5. Kampa (□ □ □): Refers to trembling or spasmodic pain, often associated with Vata disorders.
6. Toda (□ □ □): Describes pricking or piercing pain, commonly linked to nerve-related conditions or injuries.
7. Sphurana (□ □ □ □ □): Refers to throbbing or pulsating pain, often indicating vascular or muscular issues.
8. 11. Angamarda (□ □ □ □ □ □): Body ache or generalized pain, often caused by fatigue, fever, or doshic imbalances.

These terms reflect the diverse understanding of pain in Ayurveda, emphasizing its connection to specific Doshas, locations, and conditions.

Ayurveda emphasizes treating the root cause of pain rather than merely suppressing symptoms. It also focuses on enhancing the body's innate healing ability.

Acharya Charaka has described 50 Mahakashayas in the Charaka Samhita Sutrasthana, grouping drugs with similar pharmacological actions into clusters of ten under each category. These Mahakashayas aim to provide a structured approach to Ayurvedic pharmacology, making it easier to identify and use herbal formulations based on their therapeutic actions. Among these, the Shoolaprashamana Mahakashaya and Vedanasthapana Mahakashaya are specifically formulated to address pain.[7] While both focus on pain relief, their underlying principles, pharmacodynamics, and indications show notable differences.

The rasapanchakas serve as equivalents to modern pharmacology's principles, such as pharmacodynamics and pharmacokinetics, providing a holistic understanding of a drug's effects on the human body.

Table 1: Drugs of Shoolaprashamana Mahakashaya and Vedanasthapana Mahakashaya.

Shoolaprashamana Mahakashaya[8]	**Vedanasthapana Mahakashaya[8]**
1. Pippali (*Piper longum* Linn.)	1. Shala (*Shorea robusta* Gaertn.f)
2. Pippalimula (*Piper longum* Linn)	2. Katphala (*Myrica esculenta* Buch-Ham.)
3. Chavya (*Piper retrofractum* Vahl.)	Kadamba (*Anthocephalus indicus* A. Rich)
4. Chitrak (*Plumbago zeylanica* Linn.)	3. Padmaka (*Prunus cerasoides* D. Don)
5. Shunthi (*Zingiber officinale* Roscoe.)	4. Tumba *(Zanthoxylum armatum* Roxb)
6. Marich (*Piper nigrum* Linn.)	5. Mocarasa (Resin of *Salmalia malabarica* Schott and Endl)
7. Ajmoda (*Apium graveolens* Linn.)	6. Sirisa (*Albizzia lebbeck* Benth)
8. Ajaji (*Cuminum cyminum* Linn.)	7. Vanjula (*Salix caprea* Linn)
9. Ajgandha (*Cleome gynandra* Linn.)	8. Elavaluka (*Prunus cerasus* Linn)
10. Gandeer	9. Asoka (*Saraca asoca*)

Table 2: Properties of Shoolprashman Mahakashaya dravyas.

INGREDIENTS	**PHARMACODYNAMICS**	**KARMA.[9, 10]**	**ROGHANATA.[9, 10]**	**PART USED**
1. Pippali	**Rasa**: Katu **Guna**: Laghu, Snigdha,Tikshna **Virya:** Anushna sheeta **Vipaka:** Madhura **Prabhava** **Doshakarma:** Kaphavatashamak	Shoolaprashmana, Vatanulomana, Jwarghna, Deepana, Ruchya, Rasayana, Hridya, Vrshya, Rechana	Shotha, Shoola, Vatavyadhi Udarshoola, Svasa, Kasa, Pliha Roga, Gulma, Jvara, Prameha, Arsa,Udara Roga,	Phala
2. Pippalimula	**Rasa**: Katu **Guna**: Laghu, Ruksha **Virya:** Ushna **Vipaka:** Katu	Shoolaprashmana, Deepana, Pachana, Vatunulomana, Ruchya	Vataroga,Udararoga Anaha, Gulma, Krimiroga	Moola

	Prabhava: **Doshakarma:** Kaphavatashamak			
3. Chavya	**Rasa**: Katu **Guna**: Laghu, Ruksha, **Tikshna** **Virya:** Ushna **Vipaka:** Katu **Prabhava:** **Doshakarma:** Vatakaphashamak	Deepana, Pachana, Rechana,	Udararoga, Arsa, Krimi, Pliha roga, Gulma,Anaha	Moola & Phala
4. Chitraka	**Rasa**: Katu **Guna**: Laghu, Ruksha, **Tikshna** **Virya:** Ushna **Vipaka:** Katu **Prabhava:** **Doshakarma:** Kaphavatashamak	Sothahara, Shoolahara, Deepana, Grahi, Pachana, Arshohara,	Udarashoola, Gudasotha Agnimandya, Grahani Roga, Arsa,	Moola
5. Shunthi	**Rasa**: Katu **Guna**: Laghu, Snigda **Virya**: Ushna **Vipaka**: Madhura **Prabhava:** **Doshakarma:** Vatakaphashamak	Vedanasthapana, Shothahara, Anulomana, Deepana, Hrdya, Pachana, Grahi,Vrishya	Vatavyadhi, Udarshoola, Sandhishotha, Shotha, Aruchi, Agnimandya, svasa, adhmana, Amavata, Pandu, Udararoga	Kanda (rhizome)
6. Marich	**Rasa**: Katu **Guna**: Laghu, Ruksha, Tikshna **Virya:** Ushna **Vipaka:** Katu **Prabhava:** **Doshakarma:** Kaphavatashamak	Jwaraghna, lekhana, Nadibalya, Vata hara, Chedana, Deepana, Pachana, Vatanulomana, Srotoshodhana	Shoola, Agnimandhya, Grahni, Svasa, Ajeerna, Krimiroga, Tvagroga	Phala
7. Ajamoda	**Rasa**: Katu, Tikta **Guna**: Laghu, Ruksha, **Virya**: Ushna **Vipaka**: Katu **Prabhava**: **Doshakarma:** Kaphavatashamak	Shoolaghna, Deepana, Vidahi, Ruchikrit, krimijit	Shoola, Gulma, Aruchi, Adhmana, Hikka, Chardi, Krimi Roga,	Phala
8. Ajaji	**Rasa**: Katu **Guna**: Laghu, Ruksha, **Virya:** Ushna **Vipaka:** Katu **Prabhava:** **Doshakarma:** Kaphavatashamak	Shoolaprashmana, Vatanuloman, Deepana, Grahi, Balya, Ruchya Krimighna	Shotha, Udarshoola, Jwara, Aruchi, Adhmana, Varnavikar, Amlapitta, Atisara, Arsha	Phala

9. Ajgandha	**Rasa**: Katu **Guna**: Laghu, Ruksha, **Tikshna** **Virya:** Ushna **Vipaka:** Katu **Prabhava:** **Doshakarma:** Kaphavatashamak	Shoolaghna, Vedanasthapaka, Deepana, Pachana, Krimighna, Swedajanana	Gulma, Asthila Krimiroga, Kandu, Karnaroga	Whole plant
10.Gandeera	As gandeera is a contraversial drug it is not considered here			

Table 3: Chemical constitution and Pharmacological action of Shoolprashman Mahakashaya dravyas.

INGREDIENTS	CHEMICAL CONSTITUENTS.[11,12]	PHARMACOLOGICAL ACTION.[11, 12]
1. Pippali	Piperine, piplartine, sylvatin sesamin, piplastrol, triacontane, terpinolene	Anti-inflammatory, Antispasmodic, Antibacterial, Hepatoprotective, Antiulcerogenic, Antihelmintic
2. Pippalimula	Piperine, piplartine,dihydro-sigmasterol, triacontane piperlongumine, piperlonguminine, sesamin	Anti-inflammatory, Antispasmodic, Antibacterial, Hepatoprotective, Antiulcerogenic, Antihelmintic
3. Chavya	Zingiberene, zingiberol, shogaol, lingerol.	Appetizer, Digestive, Carminative, Anthelmintic, Stomache.
4. Chitraka	Plumbagin, isozeylinone, chitranone, zeylinone, elliptinone, ß-sitosterol, vanillic acid, plumbagic acid,catechol, tannin, plumbazeylanone	Anti-inflammatory, Appetizer, Digestant, Antimicrobial, Antioxidant
5. Shunthi	Zingiberene, zingiberol, shogaol, lingerol	Anti- Inflammatory, Antispasmodic Antioxidant, Antiulcer, Analgesic, Antipyretic, Carminative, Digestive, Antiflatulent,
6. Marich	Piperine, piperonal, piperoline, pellitonine, piperdine, piprettine.	Analgesic, Antioxidant, Anti-inflammatory, Muscle relaxant, Antiulcer, Antipyretic, Antiulcer
7. Ajmoda	Anthoxanthins, graveobioside A and B, lutrolin, myristic acid, d-lineonene, and bergapten	Carminative, Stimulant, Emmenagogue
8. Ajaji	Cuminaldehyde, α-pinene, ß-pinene, phellandrene, myrcene, a-terpineol, cuminic alcohol, hydrocuminine	Analgesic, Antispasmodic, Anti-inflammatory, Carminative, Anthelmintic, Anti-bacteria.
9. Ajgandha	ß-sitosterol, α-amyrin, lupeol, kaempferol, rutin, hexacosanol etc	Analgesic, Spasmolytic, Anti-inflammatory, Anti-bacterial, Antipyretic
10. Gandeer	As gandeera is a contraversial drug it is not considered here	

Table 4: Drugs of Vedanasthapana mahakashaya dravyas and its properties.

INGREDIENTS	PHARMACODYNAMICS	KARMA[13]	ROGHANATA[13]	PART USED
1. Shala	**Rasa** - Kashaya, Madhura **Guna** - Ruksha **Virya** - Sita **Vipaka** - Katu	Sthambana, Swedahara, Krimighna,Vidra dhihara,	Atisara, Pravahika, Yoniroga, Swetapradara, Raktapradara,	Niryasa.

	Prabhav – Vedanasthapana **Doshakarma:** Pittakapha Samaka	Yonirogahara, Karnarogahara, Kustaghna, Vranashodana	Atisweda, Abhighataja Vrana, Prameha.	
2. Katphala	**Rasa**: Kasaya, Tikta, Katu **Guna**: Laghu, Tikshna **Virya:** Ushna **Vipaka:** Katu **Prabhava:** **Doshakarma:** Kaphavatashamaka	Kasahara, Kantarogahara, Amahara, Deepana, Pachana, Ruchikara, Grahanirogahara, Shirorogahara.	Jwara, Shiroroga, Kasa, Swasa, Kantaroga, Agnimandya, Ajirna, Amadosha, Aruchi, Grahani, Ashas, Prameha	Twak, Pushpa .
3. Kadamba	**Rasa**: Madhura, Tikta, Kashaya **Guna**: Ruksha, **Virya:** Sheeta **Vipaka:** Katu **Prabhava:** Vedana sthapana **Doshakarma:** Vatapittashamaka	Vedanasthapana, Sothahara, Vranahara, Deepana, Pachana, Grahi, Sukrashodaka,,	Vedanayukta Vikara, Sotha, Vrana, Agnimandya, Ajirna, Sukradosha,	Twak, Patra, Moola & Phala
4. Padmaka	**Rasa**: Kashaya, Tikta **Guna**: Laghu, **Virya:** Sheeta **Vipaka:** Katu **Prabhava:** **Doshakarma:** Kaphapittashamaka	Visarpahara, Raktapittahara, Dahanashaka, Trishnahara, Ruchikara, Chardighna, Vranahara.	Visarpa, Visphotana, Raktapitta, Daaha, Trishna, Aruchi, Chardi, Vrana, Visha Vikara.	Twak, Beeja
5. Tumba	**Rasa**: Katu, Tikta **Guna**: Laghu, Ruksha, Tikshna **Virya**: Ushna **Vipaka**: Katu **Prabhava:** **Doshakarma:** Vatakaphahara	Deepana, Pachana, Vatanulomana, Ruchya, Vidahi, Swasahara,	Akshi,Karna,Shiroruja,Krimi, Kushta, Shula, Aruchi, Pliharoga, Mutrakrucchra, Visuchika, Atisaara, Swasa,	Twak, Phala
6. Mocarasa	**Rasa**: Madhura, Kashaya **Guna**: Laghu, Snigda, Picchila **Virya:** Sheeta **Vipaka:** Katu **Prabhava:** **Doshakarma:** Kaphapittashamaka	Grahi, Vrishya, Dahahara, Rasayana, Balya, Pustivardhaka, Varnya, And Sthambana, Amahara	Atisara, Raktatisara, Raktapitta, Dourbalya, Daha, Vaivarnya, Pravahika	Niryasa
7. Sirisa	**Rasa**: Madhura, Tikta, Kashaya **Guna**: Laghu, Ruksha, Tikshna **Virya**: Sheeta **Vipaka**: Katu **Prabhava**: **Doshakarma:** Tridoshashamak	Vishaghna, Sothahara, Visarpahara, Kasahara, Vranahara, Varnya, Kustaghna, Kandughna, Swasahara,	Vishavikara Sotha, Swasa, Kaasa, Kusta, Kandu, Visarpa, Twakroga, Vaivarnya	Twak, Pushpa, Beeja, Patra

		Twakrogahara,		
8. Vanjula	**Rasa**: Kashaya, Tikta **Guna**: Laghu, **Virya:** Sheeta **Vipaka:** Katu **Prabhava:** **Doshakarma:** Kaphapittashamaka	Deepana, Ruchya, Mutrala, Ashmarighna, Trishnahara, Dahahara, Kustaghna,	Daha, Shotha, Arshas, Yoniruk, Visarpa, Aruchi, Raktapitta, Vranashodhana, Jwara.	Twak,, Phala, Moola, Patra
9. Elavaluka	**Rasa**: Kashay **Guna**: Laghu, **Virya:** Sheeta **Vipaka:** Katu **Prabhava:** **Doshakarma:** Kaphapittashamaka	Trishnahara, Dahahara, Kustaghna, Swasahara, Mutrala, Krimighna	Kandu, Vrana, Chardi, Trit, Kasa, Aruchi, Hrid Ruja, Visha, Kushta, Raktapitta, Mutragata, Krimi, Murcha, Daha	Twak, Phala
10. Ashoka	**Rasa**: Kashay, Tikta **Guna**: Laghu, Ruksha **Virya:** Sheeta **Vipaka:** Katu **Prabhava:** **Doshakarma:** Kaphapittashamaka	Grahi, Varnya, Trishnahara, Dahashamaka, Krimighna, Vranaropana, Hrudya, Sandhaniya, Vishaghna, Sthambaka.	Pradara, Yonivyapat, Trishna, Daaha, Krimi, Vrana, Visharoga,Arshas, Vaivarnya, Gulma, Udarashula, Adhmana.	Kanda Twak, Pushpa, Beeja

Table 5: Chemical constitution and Pharmacological action of Vedanasthapana Mahakashaya dravyas.

INGREDIENTS	CHEMICAL CONSTITUENTS[14, 15]	PHARMACOLOGICAL ACTION[14, 15]
1. Sala	Nor-triterpene, dammarenolic acid, asiatic acid, dipterocarpol, triterpenic acid, tannic acid and phenolic content	Anti-inflammatory, Anti-obesity, Anti-bacterial, Wound healing, Antipyretic and Analagesic activities
2. Katphala	myricetin, myricitrin, glycosides, β-sitosterol, quercetin. Polyphenols, carotenoids, and vitamin C	Antiseptic, Antipyretic, Hypotensive, Anti-spasmodic, Myocardial depresent activity
3. Kadamba	Cadambine, Cadamine. isocadamine, Cadambagenic acid, Quinovic acid, Saponins, Hentria contanol and ß-sitosterol.	Antipyretic, Antihepatotoxic, Anthelminitc, Hypoglycaemic, Antidiuretic, Hypotensive, Antibacterial and Cardiac depresant.
4. Padmaka	Padmakastein, Techtochrysin genistein and ß-sitosterol behenate, Neosakuranmin, Glucogentwanin, and Prunetinoside, Flavone glycoside, Puddumin A, Prute and Stearic acids.	Antibacterial, Antimicrobial and Anti-inflammatory.

5. Tumba	Linalool, lomonene, Volatile oils, resin, tannin, copumarins, xanthylethin, alloxanthyletin, magnaflotine and zanthoxyletines.	Carminative, cardiac stimulant, Anti-diabetic, Antipyretic, Hepatoprotective, Anti-inflammatory, Anti-Spasmodic
6. Mocarasa	Napthaquinone, ß-sitosterol, lupeol, D-glucoside, ß-sitosterol, hentriacontane, hentriacontanol, essential oil, Kaempferol, quercitin, n-hexacosanol, palmitic acid, gallic acid, tannic acid and ethyl gallate.	Styptic, Anti-inflammatory, Diuretic, Anthelmintic, Demulcent, Aphrodisiac.
7. Sirisa	y-sitosteroal, B-sitosterol, Friedelan, Acetic acid, Catechin, Leucocyanidin, melanoxetin, Okanin & Pintol, Lebbeckanin A. Lebbikanin, Lebbekanin E, Oleacholic acid, and albizziagenin	Anti-allergic, Analgesic, Anti-Inflammatory, Antioxidant, Anti-Spermatogenic
8. Vanjula	Salitine, salicartin, salireproside, phenoglucosides, Alkaloids, vitamins, flavanoides, tannis	Anti-bacterial, Anti-fungal, Anthelmintic, Anti-oxidant, Anti-Inflammatory, Anti-Obesity, Hepatoprotective.
9. Elavaluka	Cyanidin, linoleic acid, volatile oil, Hydrocyanic acid, D-mandelonitril-β -glucoside (prunasin), Tectochrysin, apigenin 5- glucoside,genkwanin 5-glucoside and neosakuranine	Anti-oxidant, Anti-inflmmatory, antinociceptive, anti-hypertensive, cardioprotective.
10. Ashoka	Tannin (6%), Catechol, Epicatechin, Catechin, Hematoxylin, Ketosterol, Saponin, Epicatechol, Leucocyanidin, Quercetin, Oleic, Linoleic, Palmitic and Stearic acids.	Astringent, Sedative, Antibacterial, Anti-microbial, Analgesic, Antioxidant, Hepato-protective Cardio Protective

3. DISCUSSION

3.1. Shoolaprashamana Mahakashaya

This group of medicinal herbs used to manage pain conditions such as Amavata, Sandhishoola, Udarashoola, and Parinama Shoola, especially when associated with Ama (toxic metabolic waste). In such cases, Ama Pachana (digestion of toxins) is required.

When pain is primarily due to Vata vitiation, originating in the abdomen (Udara) and associated with Ama and indigestion (Ajirna), Vata Dosha moves abnormally (Tiryakgati). In such conditions, herbs with Deepana (digestive stimulant), Pachana (digestive), and Vatanulomana (Vata-balancing) properties are highly beneficial.

In Shoolaprashamana Dashamani, all the herbs possess Deepana, Pachana, and Grahi (absorbent) properties, along with Vata-Kapha pacifying effects. Pharmacologically, these herbs exhibit anti-inflammatory, antispasmodic, and analgesic properties, supporting their Shothahara (anti-swelling) and Sulahara (pain-relieving) actions.

P longum– Extract and piperine inhibit prostaglandins and leukotrienes (COX-1), showing anti-inflammatory activity.[16] ***P nigrum***– Ethanol extract exhibits maximum analgesic effect (writhing method).[17] ***P zeylanica*** – Hydroalcoholic leaf extract possesses anti-inflammatory activity, observed in carrageenan-induced paw edema in rats.[18] ***Z officinale***– Contains gingerol, shogaol, and piperine; ethanol and fruit extracts inhibit prostaglandins and other inflammatory mediators, showing analgesic and anti-inflammatory effects.[19] ***A graveolens***– Ethanolic seed extract shows significant analgesic activity; some compounds also exhibit anti-inflammatory and analgesic effects.[20] ***C cyminum***– Influences inflammatory biomarkers like adiponectin, high-sensitivity C-reactive protein (hsCRP)[21], ***C gynandra***– Methanolic extract shows anti-inflammatory effects in adjuvant-induced arthritic rats.[22]

3.2.Vedana Sthapana Dravyas

This group of herbs is most effective in pain conditions caused by acute trauma (Abhighataja) and inflammation, where Pitta and Rakta (blood) imbalance is the primary cause. Most of these herbs possess Pitta-pacifying (Pittahara) and Kapha-balancing (Kaphahara) properties, while a few also have Vata-balancing (Vatahara) effects.

Pharmacologically, Vedana Sthapana Dravyas exhibit strong anti-inflammatory properties, helping to soothe aggravated Pitta and Rakta, thereby reducing pain and inflammation.

S robusta– Ethanolic extract shows anti-inflammatory and antipyretic effects.[23] ***M esculenta***– Methanolic fruit extract has analgesic properties (Eddy's hot plate test); bark essential oil has topical anti-inflammatory activity.[24] ***A cadamba***– Defatted fluid concentrate of leaves and bark shows strong analgesic and anti-inflammatory effects.[25] ***Z armatum***– Fruit extract and crude alkaloids suppress COX-2, reducing inflammation.[26] ***S malabarica*** – Ethanol bark extract exhibits significant anti-inflammatory effects.[27] ***A lebbeck***– Bark extract has peripheral analgesic effects (acetic acid-induced writhing test).[28] ***S caprea.*** – Hydroalcoholic extract has potent anti-inflammatory properties.[29] ***P cerasus***– Extracts and active compounds demonstrate strong anti-inflammatory activity.[30] ***S asoca***– Ethanolic and methanolic extracts from leaves, bark, and roots show anti-inflammatory and analgesic potential.

These findings suggest that these plants have strong potential for natural pain relief and inflammation reduction.

4. CONCLUSION

Shoolaprashamana Dravyas are recommended for pain conditions associated with Ama, where Ama Pachana and Vatanulomana actions are required.

Vedana Sthapana Dravyas are effective in pain conditions caused by Pitta and Rakta imbalance, helping to manage hemorrhagic pain by constricting blood vessels and correcting blood-related disorders.

Both Shoolaprashamana and Vedana Sthapana Mahakashaya herbs have scientifically proven analgesic and anti-inflammatory properties. When used in polyherbal formulations, they serve as effective natural pain relievers.

4.1. Clinical Relevance and Scope

1. **Musculoskeletal Disorders:** Conditions like arthritis, myalgia, and spondylitis can benefit from these Mahakashayas like Ashoka, due to its anti-inflammatory and analgesic actions.
2. **Neuropathic Pain:** Chitraka and Shunthi have neuroprotective effects, making them useful in neuropathic pain management.
3. **Gastrointestinal Pain:** Jeeraka and Pippali show promising results in treating colic and intestinal spasms.
4. **Adjunct to Modern Medicine:** Can be integrated with contemporary pain management therapies to minimize side effects of synthetic analgesics.

4.2. Challenges and Future Prospects

a) **Scientific Validation:** More controlled clinical trials are needed to establish efficacy and safety.

b) **Phytochemical Studies:** Identification of active compounds responsible for the analgesic effects.

c) **Pharmacokinetic and Pharmacodynamic Studies:** Understanding bioavailability and metabolism for better formulation strategies.

d) **Comparative Studies:** Evaluating these formulations against modern analgesics to establish their clinical superiority or synergy.

5. REFERENCES

1. Janati M, Kariman H, Memary E, Davarinezhad Moghadam E, Arhami Dolatabadi A (2018) Educational Intervention Effect on Pain Management Quality in Emergency Department; a Clinical Audit. Adv J Emerg Med, 2(2): e16.

2. Tripathi KD (2013) Essentials of Medical Pharmacology. 7th (Edn.), Jaypee Brothers Publication, New Delhi, India, pp: 453.
3. Shastri Ambikadutta Kaviraj (2001) Sushruta Samhita Chikitsasthana, Hindi Commentary. 12th (Edn.), Chaukhamba Sanskrit Sansthan, Varanasi, India, Chapter 31, Shlok no.8.
4. Murthy KR, Srikantha, Susruta (2005) Gulmapratishedh Susruta Samhita uttarardha. 2nd (Edn.), Chaukhamba Orientalia, Varanasi, India, Chapter 42, Shlok no.81, pp: 271.
5. Murthy KR Srikantha, Susruta (2005) Aampakwaaishaniya adhyay Susruta Samhita uttarardha. 2nd (Edn.), Chaukhamba Orientalia, Varanasi, India, Chapter 17, Shlok no. 7, pp: 125.
6. Vidyadhar S, Tripathi RD, Vaidyamanorama (2007) Hindi Commentary, Vatvyadhichikitsaadhyay Charaka Samhita Uttarardha. 2nd (Edn.), Chaukhamba Sanskrit Pratishthan, Varanasi, India, 28: 59, pp: 699.
7. Basbaum AI, Bautista DM, Scherrer G, Julius D (2009) Cellular and molecular mechanisms of pain. Cell, 139(2): 267–284
8. Sembulingam K, Sembulingam P (2012) Essentials of Medical Physiology. 6th (Edn.), Jaypee Brothers Medical Publishers, New Delhi, India, pp: 840-1113.
9. Ralston SH, Penman ID, Strachan MWJ, Hobson R (2018). Davidson s principles and practice of medicine. In: Ralston SH, et al. (Eds.), 23rd (Edn.), Elsevier, chapter 12, pp: 284.
10. Dwivedi Amarprakash P, Chaugule Pradnya D (2018) Pain Management through Ayurveda: A Meticulous Review. IAMJ 2(4).
11. Venes Donald, Clayton L Thomas, Clarence W Taber (2001) Taber's Cyclopedic Medical Dictionary. 19th (Edn.), Philadelphia: FA Davis Co, Pennsylvania, US, pp:138.
12. Mishra Siddhi Nandan (2015) Siddhiprada Hindi Commentary on Bhaisajya ratnavali of Kaviraj Govind Das Sen. Chowkhamba Bharati Academy, Varanasi, India, Chapter 30, pp: 620-629.
13. Shastri K, Gorakhnath Chaturvedi (2009) Agnivesha tantra Hindi Commentary by Charaka Samhita. Reprint Edition, Chowkhamba Bharati Academy, Varanasi, India.
14. Sharma PC, Yelne MB, Dennis TJ (2013) Database on Medicinal Plants Used in Ayurveda. Central Council for Research in Ayurveda and Siddha Department of AYUSH, India, 3: 472.
15. The Ayurvedic Pharmacopoeia of India. Part 1, 1st (Edn.), Ministry of Health and Family Welfare, Government of India, New Delhi, India, 1,2: 4-40,52,201.

16. Prakash L Hegde, Harini A (2019) A Text Book of Dravyaguna Vijana. Chaukhamba Sanskrit Sansthan, Varanasi, India, 2,3: 231-659, 7-129.
17. Acharya PV Sharma (2019) Dravya Guna Vigyana. Part II, Chaukhamba Bharati Academy, Varanasi, India, pp: 275- 365.
18. Sharma AK, Singh RH (1980) Screening of anti-inflammatory activity of certain indigenous drugs on carrageenin induced hind paw edema in rats. Bull. Med Ethnobot Res, 2: 262.
19. Kumar S, Arya P, Mukherjee C, Singh BK, Singh N, et al. (2005) Novel aromatic ester from Piper longum and its analogs inhibit expression of cell adhesion molecules on endothelial cells. Biochemistry, 44(48): 15944-15952.
20. Choudhary GP (2006) Mast cell stabilizing activity of piper longum Linn. Indian J Allergy Asthma Immunol, 20: 112−116.
21. RS Bachhav, VV Buchake, RB Saudagar. Analgesic and Anti-Inflammatory Activities of Anthocephalus cadamba Roxb. Leaves in wistar Rats, Research Journal of Pharmacy and Technology, 2009.
22. Pankaj H. Chaudhary, Somshekhar S. Khadabadi. Bombax ceiba Linn. Pharmacognosy, Ethno botany and Phytopharmacology, 2012.
23. Dar a, Faizi S, Naqvi S, Roome T, S. Z. Ur-Rehman, Muhammad Ali, Firdous S et al. Analgesic and antioxidant activity of Mangiferin and its derivaties: the SAR. Bio Pharm. Bull, 2005; 28(4): 596-600.
24. Ahmed, W. A. Shah, S. Akbar, M. Younis, D. Kumar, International Journal of Research in Phytochemistry and Pharmacology, 2011; 17: 1.
25. Mohamed Farag, Ali EL Gama et al. Evaluation of some biological activities of Albizia lebback flowers. Pharmacy and Pharmacy, 2013.
26. N.P. Babu, P. Padikumar and S. Ingnacimuthu, Antiinflammatory activity of Albizia lebbeck Benth, an Ethanomedical Plant in acute and chronic animal models of Inflammation, Journal of Ethno pharmacology, 2009.
27. C.R. Resmi, M. R. Venukumar and M.S. Latha. Anti-oxidant activity of Albizzia lebbeck Benth. Alloxan Diabetic rats, Indian Journal of Physiology and Pharmacology, 2006.
28. Y.N. Singh, H. Bist and D. Panday, Effect of Dry Seed extract of a medicinal plant Albizzia lebbbeck on testicular and epididymal protein profile of rat, Himalayan Journal of Environment and Zoology, 1991.

29. Ajaz Ahmed, Wajahat A. Shah, Seema Akbar, Mohammad Younis, Dinesh Kumar, A short chemical review on Salix caprea commonly known as Gaot willow, Int. J. Res. Phytochem. Pharmacol, 2011.
30. Angad Verma, Raja Chakraborty et al. Analgesic Activity of Various Leaf Extracts of Saraca asoca Linn. Scholars Research Library Der Pharmacia Letter, 2010.