Dashmoola: A Classical Ayurvedic Formulation for Human Health

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ABSTRACT:Dashmoola, meaning "ten roots," is one of the most valued formulations in Ayurveda, used to promote human health since ancient times. This polyherbal formulation works synergistically to address various health conditions. It addresses fundamental health challenges that remain prevalent in contemporary society. From respiratory ailments and musculoskeletal disorders to nervous system imbalances and digestive complications. The Dashmoola is recognized as Tri-doshasamaka primarily Vata-pacifying formulation. It has strong analgesic, antioxidant, and anti-inflammatory effects. The polyherbal combination is utilized to make various kinds of medicines that are used to treat different disorders without any side effects. In an era where chronic diseases dominate global health concerns, Dashmoola's multi-system approach provides valuable alternatives to conventional single-target therapies. Understanding how this ancient formulation supports human health requires examination of its components, mechanisms of action, and clinical applications across various physiological systems. This review article presents a comprehensive analysis of Dashmoola's botanical constituents, pharmacological properties, therapeutic applications, and future prospects, aiming to bridge the gap between Ayurvedic knowledge and modern biomedical research. The paper highlights the significance of Dashmoola as a health promoter for the community and calls for further evidence-based exploration to fully explore its clinical and preventive health potential.

KEYWORDS: Anti-inflammatory, Ayurveda, Dashmoola, Formulation, Rasayana, Vata

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I. INTRODUCTION

Ayurveda is a science of life and it is the ancient and inclusive medical system, focused on healthy life, preventive and curative approaches with natural remedies, including herbal formulations and purification procedures (Tripathi, 2007). Dashmoola is one of the most valued and long-standing formulations in Ayurveda. The name Dashmoola originates from Sanskrit, combining two words 'Dash' meaning ten, and 'Moola', meaning roots. This polyherbal preparation of Ayurveda embodies the deep wisdom of Ayurvedic pharmacology, where multiple plant medicines are mixed together and work synergistically to address various health conditions. This formulation exemplifies the Ayurvedic principle of Rasayana, which refers to medicines that cure diseases, promote longevity, vitality, and overall well-being. Dashmoola addresses fundamental health challenges that remain prevalent in contemporary society. From respiratory ailments and musculoskeletal disorders to nervous system imbalances and digestive complications, Dashmoola addresses fundamental health challenges that remain prevalent in contemporary society (Sharma, 2006). The Dashmoola is recognized as Tridoshasamaka primarily Vata-pacifying formulation. Vata dosha governs movement, nervous system function, and execratory processes. When Vata becomes imbalanced, it manifests as pain, stiffness, irregular digestion, anxiety, and various degenerative conditions (Shastri, 2009). The Dashmoola works dominantly on the Vata, and it has strong analgesic, antioxidant, and anti-inflammatory effects (Tripathi, 2009). The polyherbal combination is utilized to make various kinds of medicines that are used to treat different disorders. Dashmoolakwath, Dashmoolarista and Dashmoola Taila are popular ones in the community. In an era where chronic diseases dominate global health concerns, Dashmoola's multi-system approach provides valuable alternatives to conventional single-target therapies. Understanding how this ancient formulation supports human health requires examination of its components, mechanisms of action, and clinical applications across various physiological systems. This review article aims to explore the phytochemical composition, pharmacological activities, clinical applications, and future prospects of Dashmoola in the context of human health.

II. COMPOSITION OF DASHMOOLA

The formulation of Dashmoola is a combination of Brihat Panchamoola and Laghu Panchamoola, which contains ten different plant roots in equal ratio. Out of the ten roots, five are obtained from trees, known as Brihat Panchmoola and five are obtained from shrubs, known as Laghu Panchmoola. Brihat Panchmoola contains roots of Bilva (*Aegle marmelos*), Shyonak (*Oroxylum indicum*), Gambhari (*Gmelina arborea*), Patala (*Stereospermum suaveolens*), Agnimantha (*Clerodendrum phlomidis*), whereas Laghu Panchmoola contains roots of Shalaparni(*Desmodiumgangeticum*), Prishniparni (*Uraria picta*), Kantakari (*Solanum xanthocarpum*), Brihati (*Solanum indicum*) and Goksura (*Tribulus terrestris*) (Sharma, 2006; Shasthri, 2007; Tripathi, 2009). The botanical name, family, plant part used, recommended dosage, and chemical constituents of all ten herbal drugs used in Dashmoola are shown in Table 1. The trees contributing to this group typically grow in diverse ecological conditions, developing extensive root systems that concentrate bioactive compounds. These roots contain high levels of alkaloids, glycosides, and other phytochemicals that demonstrate significant anti-inflammatory, immunomodulatory, and adaptogenic properties (Maity et al., 2009; Parekar et al., 2015). These smaller plants often grow in varied soil conditions, developing concentrated root systems rich in volatile oils, flavonoids, and other rapidly absorbed compounds. Their bioactive constituents demonstrate significant antispasmodic, analgesic, and nervine properties.

Table No.-1: Botanical name, Family Plant part used, Dosage and chemical constituents of Dashmoola

Plants Name	Vernacular Name	Family	Part used	Dosage	Chemical constituents
Aegle marmelos (Bel)	Hindi -Bel English - Bael	Rutaceae	Root bark, Leaves, Fruit	Decoction 50- 100 ml, Powder 3-5g, Leaf juice 10-20 ml	Marmelosin, Tannins, Coumarine, Umbeliferone, Mucilage, Fatty oil, Glycosidedes, Xanthotoxin, Marmesin, Marmin, Skimmin etc.
Gmelina arborea (Gambhari)	Gambhara	Verbenaceae	Root, Fruit	Root bark decoction 50-100 ml, Fruit powder 1-3 g.	B-sitosterol, ceryl alcohol, gmelinol; butyric & tartaric acids; apigenin, premnazole, arborone, arboreol, isoarboreol, cutytylferulate, epieudesmin, gmelanore, gmelafuran, gummadiol, B- sitosterol, nonsaponifiable fraction, saponifiable fraction, apiosyl-skimmin, octacosanol etc.
Stereospermum suaveolens	Patala	Bignoniaceae	Root, Stem, Seed, Flowers, Leaves	Decoction 50- 100 ml, Kshara 1-1.5 g.	Bark yields a dark coloured gum. The roots fat is made up of palmitic (30.41 %), stearic (58-16 %) and oleic acid (11.43 %), Ceryl alcohol and Lapacol.
Premna mucronate (Agnimantha)	Arni, Ganiyar, Agethu	Verbenaceae	Root	Decoction: 50– 100 ml per day Powder: 3–6 g	B-sitosterol, luteolin (leaves); aphelandrine, premnine, betulin, ganiarine, ganikarine, caryophellen, premnenol, premnaspirodiene etc.
Oroxylum indicum (Syonaka)	Sonapatha	Bignoniaceae	Root	Powder 3-6 g, decoction 40-80 ml	Oroxylin A, Baicalein, Chrysin, cysta- sterol
Desmodiumgangeti cum (Shalaparni)	Shalaparni Sarivan	Fabaceae	Whole plant	Decoction 50- 100 ml	N,N- dimethyltryptamine, hypaphorine, hordenine, caudicine, gangetin-3H, gangetinin, desmodin etc.
Uraria picta (Prishniparni)	Prishniparni	Papilionaceae	Root, Bark, Leaves, Flower, Fruit	Decoction: 50– 100 ml per day Powder: 3–6 g	Pulp contains mucilage, tannin, pectin, sugar, a volatile oil and bitter principle and ash contains K and Na compounds.
Tribulus terrestris (Gokshura)	Gokharu English: Cow hage	Zygophyllaceae	Root, Bark, Leaves, Flower, Fruit	Decoction 50- 100 ml, powder 3-6 g	Fruits-Chlorogenin, diosgenin, gitogenin, rutin, rhamnose Roots-Campesterol, \(\beta\)-sitosterol and stigmasterol, neotigogenin
Solanum xanthocarpum (Kantakari)	Chotikateri,Bhata kataya	Solanaceae	Root, Bark, Leaves, Flower, Fruit	Decoction 40-80 ml	Solasodine alkaloid isolated from leaves. Coumarines, escutin, esculetin, scopolin, scopolein from roots and fruits. Fat and rala from the whole plant.
Solanum indicum (Brihati)	Badi Kateri, Bankanta	Solanaceae	Root, Fruit, Flowers, Leaves	Powder 3-5 g; decoction 50-100 ml.	A glycol-alkaloid, solasonine which on hydrolysis afforded solasodine and sugar glucose, galactose. Fruits showed the presence of solasonine, solanine,

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			carbohydrates,	fatty	acids,	a
			hydrocarbon, sito	sterol and	d carpeste	rol.

In Ayurvedic pharmacology, medicinal drugs are analyzed through five fundamental properties that determine their therapeutic action. These properties are Rasa (taste), Virya (Potency/Energy), Vipaka (Post-digestive Effect), Guna (Physical Qualities) and Prabhava (Special Effect). The pharmacological properties of Dashmoolaare shown in table 2. Dashmoola has sweet, bitter and astringent taste. Sweet (Madhura) provides nourishment, strength, and building properties. Bitter (Tikta) Offers detoxifying, anti-inflammatory, and purifying actions. Astringent (Kashaya) provides toning, binding, and healing qualities. The virya (Potency/Energy) property of Dashmoola is warming Rasa or Ushna Virya, which means it Stimulates digestion and metabolism, Enhances circulation and tissue nourishment, Counters cold and stagnant conditions and supports elimination of toxins through increased metabolic activity. The post-digestive effect (Vipaka) is sweet (Madhura), which provides long-term nourishing effects, supports tissue building and regeneration. Guna (Physical Qualities) of Dashmoola possesses Laghu (Light) easy to digest and assimilate, Ruksha (Dry) Helps reduce excess moisture and kapha, Tikshna (Sharp) penetrating quality that enhances bioavailability. The Prabhava (Special Effect) of Dasmoola is pacify Vata aggravation and work as anti-inflammatory, analgesic, and anti-rheumatic agent.

Drug	Ayurvedic Properties						
	Rasa	Guna	Veerya	Vipaka	Doshher Karma		
Bilva	Tikta, Kashaya	Ruksha,Laghu	Ushna	Katu	Vata-Kapha Shamak		
Gambhari	Tikta, Kashaya	Guru	Ushna	Madhura	Tridoshshamak		
Patala	Tikta, Kashaya	Ruksha,Laghu	Ushna	Katu	Tridoshshamak		
Agnimantha	Tikta, Katu	Guru	Ushna	Katu	Kapha-Vata shamak		
Syonaka	Tikta,Kashaya, Madhura	Ruksha,Laghu	Ushna	Katu	Kapha-Vata shamak		
Salparni	Madhura,Tikta	Guru,Snigdha	Ushna	Madhura	Tridoshshamak		
Prisniparni	Madhura,Tikta	Laghu,Snigdha	Ushna	Madhura	Tridoshshamak		
Vartaki	Katu, Tikta	Laghu Ruksha, Tikshna	Ushna	Katu	Kapha-Vata shamak		
Kantakari	Katu, Tikta	Laghu Ruksha, Tikshna	Ushna	Katu	Kapha-Vata Shamak		
Goksura	Madhura	Guru,Snigdha	Sheeta	Madhura	Vata-Pita Shamak		

Table No. - 2: Ayurvedic properties of Dashmoola drugs

III. DASHMOOLA FORMULATIONS

Ayurvedic texts provide clear instructions for selecting, collecting, processing, and storing the roots used in Dashmoola to ensure their full therapeutic value. Roots are usually collected at specific times when their natural compounds are most active. The quality of the roots can vary based on the region they come from, with some areas producing more effective materials. After collection, the roots are cleaned, dried, and stored using methods that help preserve their strength and prevent spoilage (Sharma, 2006; Tripathi, 2009). Today, quality checks such as chemical testing, biological activity tests, and microbial analysis are used to make sure the formulations remain safe and effective. Modern processing also includes safety steps to avoid contamination by heavy metals, pesticides, or harmful microbes. Proper storage methods further help maintain the strength and shelf life of Dashmoola products. Dashmoola is often combined with other herbs for different treatments. For example: Dashmoola with Ashwagandha and Bala is used in medicated oils for back pain and joint problems. Dashmoola with Vasa and Trikatu supports respiratory health. Dashmoola with Tulsi is used to manage chronic fevers. Several types of Dashmoola-based formulations are available, each with specific uses:

DashmoolaKwath/Kashay (Decoction): This is most commonly used form of Dashmoola formulation. It is a liquid decoction made by boiling Dashmoola roots in water and then reducing the mixture to one-fourth of its original volume. It is used to treat Vata disorders, especially neurological and musculoskeletal disorders. It is also beneficial for postpartum care, joint pain, backaches, and arthritis. The recommended dosage is 50-100 ml, taken twice daily, either with honey or as directed by a physician.

DashmoolaChurna (powder) – It is convenient for long-term use and mixing with other medicines. Fine herbal powder is used for respiratory issues such as cough, bronchitis, vata disorders, fever, and inflammation. The recommended dose is 3–6 grams with warm water or ghee.

Dashmoola Taila (oil): It is a herbal oil for external applications in joint and muscle disorders. Examples include Dashmoola Bala Taila and DashmoolaKsheera Bala Taila. It is utilized in various applications such as Abhyanga (body massage), Basti (enema), and Nasya (nasal drops) for conditions like sinusitis and migraines. Additionally, it is effective in treating arthritis, sciatica, back pain, facial palsy, hemiplegia, and also has rejuvenating and anti-ageing properties.

DashmoolaGhrita (Medicated Ghee): Ghee-based preparation used in internal oleation during Panchakarma, for neurological and respiratory conditions, and in Rasayana (rejuvenative) therapy. The recommended dose is 5–10 grams with warm milk or water.

Dashmoola Sidh Ksheer (milk preparation) - suitable for chronic conditions, stress management and in weakened patients.

Dashmoolarishta (Fermented Herbal Tonic): This is a self-fermented liquid that contains key ingredients such as Dashmoola, Draksha, Madhuka, and Dhataki. It is utilized for postnatal recovery, improving weakness and fatigue, stimulating appetite, aiding digestion, and strengthening the uterus and reproductive organs. The recommended dosage is 15–30 ml after meals, mixed with an equal amount of water.

IV. THERAPEUTIC APPLICATION OF DASHMOOLA FORMULATIONS

Dashmoola formulations contain numerous therapeutic compounds including alkaloids, glycosides, saponins, flavonoids, tannins, and essential oils. These diverse chemicals have the ability to interact with many metabolic and physiological pathways, which creates comprehensive therapeutic coverage. Dashmoola has potent anti-inflammatory activity, adaptogenic properties, maintains homeostasis during stress, supports immune system balance, and enhances protective responses. Dashmoola and its formulations are used to cure and prevent various types of diseases and disorders, ultimately promoting human health. The properties and therapeutic applications of Dashmoola formulations is shown in figure 1.

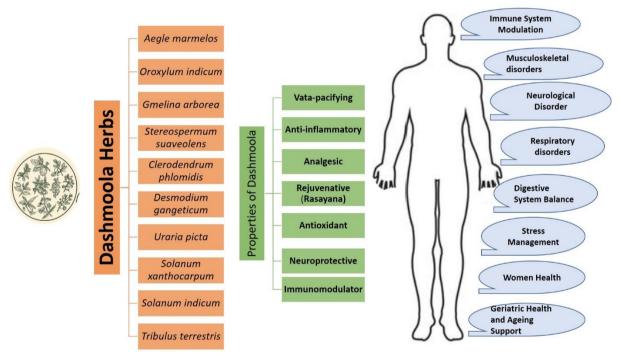


Figure 1. Dashmoola and Its Therapeutic Benefits on Human Health

Respiratory disorders

Dashmoola shows effectiveness in respiratory disorders, particularly those involving Kapha accumulation and Vata disturbance. Dashmoola demonstrates remarkable ability to support healthy bronchial function through its expectorant and bronchodilatory properties. It helps to mobilize accumulated secretions while reducing bronchial inflammation and spasm. The mucolytic properties of Dashmoola demonstrate its effectiveness in chronic bronchitis, asthma, and other conditions associated with excessive mucus production. Dashmoola formulation Katutrayadi Kashaya contains compounds that stabilize mast cells and reduce histamine release, providing natural anti-allergic support (Misra, 2005). This action benefits individuals with respiratory allergies, seasonal sensitivities, and asthma triggered by environmental allergens (Kumar et al., 2024). During periods of increased respiratory challenges, such as seasonal changes or pollution exposure, Dashmoola provides protective and supportive effects that help maintain respiratory health. Dashmoola supports the normal

function of respiratory cilia that help clear debris and pathogens from respiratory passages. Improved ciliary action enhances the lungs natural cleaning mechanisms. The components found in Dashmoola also demonstrate antimicrobial properties that help to protect respiratory tissues from bacterial and viral infections. The formulation promotes healing of damaged respiratory tissues through its anti-inflammatory and regenerative properties. This healing support proves particularly valuable in chronic respiratory conditions with ongoing tissue damage.

Musculoskeletal disorders

Dashmoola and its formulation are very effective in various musculoskeletal disorders. The formulation addresses both acute and chronic problems related to musculoskeletal disorders. It demonstrates significant benefits in multiple forms of arthritis, including osteoarthritis, rheumatoid arthritis, and gouty arthritis. The anti-inflammatory properties of Dashmoola reduces joint swelling and pain while supporting cartilage health. The antispasmodic properties of Dashmoola components provide effective relief from muscle tension, spasms, and cramps (Chaturvedi et al., 2022). Lower back pain, a common complaint in modern society, responds well to Dashmoola therapy. The components found in Dashmoola may help to protect cartilage from degradation while supporting the synthesis of cartilage matrix. This protective effect could slow the progression of osteoarthritis. Dashmoola components may support bone density and strength, which reduces the risk of osteoporosis and fractures. Dashmoola formulation such as Dashmoola Arishta demonstrate ability to modulate cyclooxygenase enzymes, reducing the production of inflammatory prostaglandins that contribute to joint pain and swelling. The formulation appears to influence cytokine production, promoting anti-inflammatory cytokines while reducing pro-inflammatory mediators. This balance supports joint health and reduces systemic inflammation (Abraham et al., 2020).

Stress and Anxiety Management

Dashmoola have natural anxiolytic properties, which help in reducing stress, anxiety and migraine without causing sedation or dependency (Bhatt and Vaghela, 2024). The formulation supports the nervous system's ability to cope with daily stressors while maintaining mental clarity and focus. The research studies reported that Dashmoola improved sleep quality when individuals used it regularly. The formulation appears to support natural sleep cycles while reducing the time needed to fall asleep and improving sleep depth (Pal and Sharma, 2014). Herbs like Brahmi and Shankhpushpi are considered brain tonics (Sarkar et al., 2024). When Dashmoola is combined with these herbs, it enhances cognitive function while reducing mental fatigue and anxiety. Dashmoola combined with Ashwagandha enhances an individual's physical strength and reduces stress and other mental health disorders.

Neurological Disorders and Dashmoola

Neurological disorders affect the brain, spinal cord, and nerves throughout the body. Conditions such as epilepsy, Parkinson's disease, multiple sclerosis, Alzheimer's disease, nerve damage, and stroke can lead to problems with movement, thinking, feeling, and emotions. In Ayurveda, these disorders are often linked to an imbalance in the Vata dosha. Bringing Vata back into balance is believed to help restore nerve health. Dashmoola is commonly used in Ayurvedic treatment for Vata-related conditions. It acts as a nerve tonic that both calms overactive nerves and strengthens weak ones. This makes it helpful for a wide range of neurological problems (Sood and Thakur, 2015). Dashmoola is especially useful for relieving different types of headaches, including those caused by stress or hormonal changes. Its protective effects on nerve cells may help slow the progress of diseases like Parkinson's or Alzheimer's by reducing damage caused by inflammation and oxidative stress. It may also support the repair of damaged nerves. Additionally, Dashmoola helps improve blood flow to the brain, which ensures that brain cells receive enough oxygen and nutrients (Ranajan et al., 2015).

Digestive System Balance

Dashmoola is helpful for improving digestive health, especially in conditions linked to Vata imbalance, which can disturb normal function of the gastrointestinal tract. Its warming nature supports the digestive fire (Agni) in a gentle way, improving digestion without causing irritation or excess heat. This mild stimulation helps the body process food better and absorb nutrients more effectively. Dashmoola also supports healthy movement in the intestines, which helps prevent constipation without leading to strong purging. Its anti-inflammatory qualities may help people with bowel conditions by calming inflammation and aiding in the repair of damaged intestinal tissues. Studies suggest that the herbs in Dashmoola may support healthy gut bacteria, which are important for maintaining good digestion (Peterson et al., 2018). In addition, some of its natural compounds may support the activity of digestive enzymes, helping the body break down food and absorb nutrients more efficiently (Shastri, 2009).

Cardiovascular Health Support

Ayurvedic text describes various cardiovascular benefits of Dashmoola, particularly its ability to support healthy circulation and reduce cardiovascular strains. It improves circulation throughout the body, ensuring adequate blood flow to all tissues and organs. This circulatory support proves particularly valuable in conditions involving poor peripheral circulation. The formulation may help maintain healthy blood pressure levels through its effects on vascular tone and stress reduction. This support proves valuable for individuals with mild hypertension or those at risk for cardiovascular disease (Mahesh et al., 2024). Some traditional applications suggest that Dashmoola may help maintain healthy heart rhythm, particularly in cases where irregular heartbeat is associated with stress or anxiety. Preliminary research suggests that certain Dashmoola components may support endothelial function, the health of blood vessel linings that play crucial roles in cardiovascular health. Some studies indicate that regular Dashmoola use may help maintain healthy cholesterol levels and improve overall lipid profiles, potentially reducing cardiovascular disease risk. The antioxidant properties of various Dashmoola components may help protect cardiovascular tissues from oxidative damage, a key factor in cardiovascular disease development. Certain components demonstrate vasodilatory properties, helping maintain healthy blood vessel diameter and reducing cardiovascular strain. The formulation may influence platelet aggregation and function, potentially reducing the risk of inappropriate blood clot formation while maintaining normal hemostatic function. Various bioactive compounds may help protect cardiac tissues from damage caused by stress, inflammation, and other harmful factors.

Immune System Modulation

The immune system is the defense mechanism of body against infections, diseases, and foreign invaders. In Ayurveda, the immune system is associated with Ojas, Agni, and the balance of the three doshas (Vata, Pitta, Kapha). The concept of Rasayana therapy plays a central role in strengthening immunity. Dashmoola supports immune system balance through multiple mechanisms. The formulation helps the immune system appropriately respond to challenges while preventing excessive reactions that can lead to autoimmune problems or chronic inflammation (Manikandaselvi et al., 2016). Dashmoola enhances the body natural protective mechanisms, helping prevent infections and supporting recovery from illness. The research studies confirms that Dashmoola and its formulations demonstrated immunomodulatory properties, and helping to regulate immune system. The formulation influences cytokine production and function, promoting anti-inflammatory cytokines while reducing excessive pro-inflammatory mediators. The studies also suggest that components found in Dashmoola may enhance natural killer cell activity, improving the body's ability to identify and eliminate abnormal cells (Sharma et al., 2019).

Women's Health Applications

Women's reproductive health is closely connected to the proper function of Rasa dhatu and Shukra dhatu. Problems like irregular periods, infertility, complications after childbirth, and menopausal symptoms often result from Vata imbalance and weakened body tissues. Dashmoola is known in Ayurveda for supporting women's reproductive health by helping regulate hormones and aiding recovery after childbirth. Its anti-inflammatory, pain-relieving, Vata-calming, and uterine-strengthening properties make it especially useful in these areas (Suman et al., 2025). It helps in managing menstrual cycles and easing discomfort such as cramps and irregular bleeding. After childbirth, Dashmoola supports recovery, improves milk production, and helps restore the mother's strength and well-being. During menopause, it helps ease symptoms and supports hormone health (Sharma, 2024). Studies show that Dashmoola may help keep hormone levels steady and support the endocrine system throughout different life stages. It also promotes bone health by improving calcium use in the body, which is particularly important for women after menopause who may face a higher risk of bone loss. The formulation supports the natural function of hormones and maintains the health of the uterus by supporting proper tone and blood flow (Biradar et al., 2019).

Geriatric Health and Ageing Support

Ageing is a natural process marked by a gradual decline in body functions, including reduced immunity, weaker muscles and bones, slower tissue repair, and decreased mental alertness. In Ayurveda, care for ageing focuses on Rasayana therapy, which aims to strengthen the body and slow down the effects of ageing. Dashmoola is considered a Rasayana in Ayurvedic medicine, meaning it helps support health and vitality as people grow older. Regular use of Dashmoola is believed to help maintain energy, physical strength, and mental focus in older adults. Dashmoola's has antioxidant properties which protect cells from age-related oxidative damage, potentially slowing various aspects of the ageing process (Govindarajan et al., 2005). The adaptogenic and neuroprotective properties may help maintain cognitive function during ageing, potentially reducing the risk of age-related cognitive decline. Various components may support mitochondrial function, the cellular powerhouses that decline with age and contribute to various age-related changes. The formulation may support protein synthesis and repair mechanisms that become less efficient with aging. By maintaining healthy

inflammatory responses, Dashmoola may help prevent chronic low-grade inflammation associated with aging and age-related diseases.

Stress Management and Adaptogenic Properties

Ayurvedic medicine recognizes stress as a primary factor in disease development, and Dashmoola is used as a stress-relieving remedy reflects its ability to support the body's natural stress response mechanisms. Dashmoola supports adrenal gland function, preventing excessive cortisol production while maintaining appropriate stress hormone levels (Sharma 2024). Regular use of Dashmoola enhanced mental resilience and stress tolerance, helping individuals to manage more effectively with daily challenges. The research indicates that Dashmoola components may help regulate the hypothalamic-pituitary-adrenal axis, the body's primary stress response system. The formulation may help maintain healthy cortisol rhythms while preventing excessive cortisol production that can contribute to various health problems. By reducing stress-induced inflammation, Dashmoola helps to prevent various stress-related health complications. The formulation influences neurotransmitters that involved in stress response and mood regulation, supporting emotional balance and stress resilience. The Dashmoola components helps and protect cells from stress-induced damage while supporting cellular repair and adaptation mechanisms. It supports optimal energy metabolism, helping maintain energy levels during stressful periods while preventing stress-related fatigue.

V. FUTURE PROSPECTIVE AND RESEARCH

Dashmoola is widely known for its ability to calm Vata dosha, reduce inflammation, relieve pain, and support strength and recovery. It has been used for centuries in India to treat various illnesses. Today, with the rise of evidence-based medicine, there is an opportunity to explore new uses of Dashmoola in modern therapy, pharmacology, and biotechnology. Its future use depends on focused research, standard production methods, wider global recognition, and targeted health applications. Careful scientific studies are needed to identify the active compounds in Dashmoola and understand how they work in the body. To increase its reach and acceptance, Dashmoola should be made into modern forms like capsules, syrups, and nanoemulsions. It can also be added to health products such as functional drinks and enriched cooking oils. Making nutraceuticals from Dashmoola and improving their absorption using nanotechnology can increase their effectiveness. Standardizing everything from plant growing methods to product testing and legal approvals is important for international use. Clinical trials must be carried out to confirm the benefits of Dashmoola and support its traditional uses with clear scientific evidence. Expanding global access to Dashmoola could help many people, especially in regions with limited healthcare. However, many of the plants used in Dashmoola are at risk from overharvesting. Sustainable growing practices, lab-based plant production, and following Good Agricultural Practices are essential to protect these resources. Creating herbal gardens, setting up conservation efforts, and promoting organic farming will help maintain the strength and supply of Dashmoola. Keeping traditional knowledge alive while meeting current healthcare demands is key to making sure Dashmoola remains a useful and trusted natural medicine.

VI. CONCLUSION

Dashmoola, made from the roots of ten medicinal plants, is a well-established Ayurvedic remedy in India. Its proven effectiveness and the combined action of its ingredients make it a reliable choice for those looking for natural ways to improve health. Dashmoola is one of the most important traditional remedies, offering wide-ranging benefits that remain relevant in today's health care. It supports the body in many ways—from helping the lungs and joints to strengthening the nervous system and immune response. Unlike conventional drugs that target a single problem, Dashmoola works with the body to restore balance and improve overall health. Its use alongside modern medicine may lead to safer and more lasting solutions for maintaining well-being and managing diseases. With proper scientific research, better production methods, and international support, Dashmoola has the potential to become a valuable natural remedy for common problems like ageing, inflammation, nerve damage, and weakened immunity. It is not only a traditional formula, but also a promising option in today's personalized and preventive health care.

REFERENCES

- [1]. Abraham, B., Reshmitha, T. R., Navami, M. M., George, L., Venugopalan, V. V., & Nisha, P. (2020). Phytochemical rich extract from the spent material generated from Industrial Dashamoola preparation (a medicinal Ayurvedic decoction) with antioxidant, antidiabetic and anti-inflammatory potential. Industrial Crops and Products, 151, 112451.
- [2]. Biradar, S. V., Nadagouda, S., & Patil, M. N. (2019). A clinical study to evaluate the effect of DashamoolaTrivrit Taila Paana in KashtartavawsrDysmenorrhoea. Journal of Ayurveda and Integrated Medical Sciences, 4(05), 33-37.
- [3]. Bhatt, P., & Vaghela, D. B. (2024). Efficacy of Ayurvedic Medication on Anxiety-induced Migraine: A Case Study. Journal of Ayurveda and Integrated Medical Sciences, 9(9), 282-286.
- [4]. Chaturvedi, P., Piplya, M., & Jain, S. (2022). Assessment of Osteoporosis (Asthi-MajjaKshaya) wsr to BMD with DashmoolaMajja Siddha Sneha Basti. Journal of Ayurveda and Integrated Medical Sciences, 7(6), 204-207.

- [5]. Govindarajan, R., Vijayakumar, M., &Pushpangadan, P. (2005). Antioxidant approach to disease management and the role of 'Rasayana'herbs of Ayurveda. Journal of ethnopharmacology, 99(2), 165-178.
- [6]. Kumar, A., Sharma, B. D., & Ojha, N. (2024). Therapeutic effect of an Ayurvedic drug in the management of Respiratory Allergic Disorders in children-A comprehensive review. Journal of Ayurveda and Integrated Medical Sciences, 9(4), 167-175.
- [7]. Mahesh, A. S., & Shah, S. R. (2024). Optimizing cardiovascular health: ayurvedic insights into blood flow through normal and stenosed arteries. International Journal of Ayush, 13(5), 18-35.
- [8]. Pal, S. S., & Sharma, O. P. (2014). Efficacy of Dashmoola Taila Shirodhara and Jal Shirodhara in Management of Anidra (Insomnia). Journal of Ayurveda, 3, 70-83.
- [9]. 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 Jan-Mar;6(1):11-8. doi: 10.4103/0975-9476.146565.
- [10]. KL, R. U., & Sweta, K. M. (2022). Conceptual understanding of the Anti-inflammatory effects of Dashamoola with relevant Modern perspective: A critical study. Journal of Ayurveda and Integrated Medical Sciences, 7(11), 155-160.
- [11]. Maity, P., Hansda, D., Bandyopadhyay, U., & Mishra, D. K. (2009). Biological activities of crude extracts and chemical constituents of Bael, Aegle marmelos (L.) Corr. Indian journal of experimental biology, 47(11), 849.
- [12]. Manikandaselvi, S., Vadivel, V., & Brindha, P. (2016). Nutraceuticals—An overview. International Journal of Pharma and Bio Sciences, 7(1), 284-96.
- [13]. Misra, B.S, (2005). Bhavaprakash of Bhavmisra edited with Vidyotini, Chaukhambha Sanskrit sanasthan, Varansi
- [14]. Peterson, C. T., Sharma, V., Uchitel, S., Denniston, K., Chopra, D., Mills, P. J., & Peterson, S. N. (2018). Prebiotic potential of herbal medicines used in digestive health and disease. The Journal of Alternative and Complementary Medicine, 24(7), 656-665.
- [15]. Sarkar, B. R., Giri, S., Dey, G., & Pal, P (2024). Phytoconstituents: The Natural Tonic for a Healthy Brain. In *Plant-based Foods and their Implications in Brain Health* (pp. 262-274). CRC Press.
- [16]. Sharma SP, (2006). Vagbhata Ashtanga Sangraha, Chaukhambha Sanskrit Prakashan, Varanasi, India
- [17]. Sharma, N., Singh, N. R., &Varsakiya, J. (2019). Management of Vatarkta (Gout) in Ayurveda. World Journal of Pharmaceutical Research, 8 (6), 1319-1329.
- [18]. Sharma, N. (2024). Therapeutic use of phytochemicals in the treatment of various female reproductive disorders. Life Sci Research Communications, 1(2):55-72
- [19]. Shastri A (2009). Sushruta Samhita, Chaukhamba Sanskrit Sansthan, Varanasi
- [20]. Sood, S. K., & Thakur, R. (2015). Herbal resources of India and Nepal. Scientific Publishers.
- [21]. Suman, P., Sharma, R., Kumari, S., KK, A., & Bahuguna, K. (2025). Dashmoola in StriRoga: A Review on its Therapeutic Benefits. Journal of Ayurveda and Integrated Medical Sciences, 10(4), 259-266.
- [22]. Tripathi B, (2007). Charaka Samhita with Charaka Chandrika, Vol. 1, ChaukhambaSurbharatiPrakashana, Varanasi, India
- [23]. Tripathi B, (2009). Astangahrdayam, Chaukhamba Sanskrit PratishthanPrakashana, Delhi, India