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DASHMOOLA SIDDHA MAJJA BASTI IN AVN OF FEMORAL HEAD: PREPARATION AND MODE OF ACTION

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ABSTRACT

Introduction-Basti is regarded as the Ardha Chikitsa for Vata disorders in Ayurveda. Among its variants, Majja Basti is specially indicated for Asthi and Majja Dhatu Kshaya. Dashmoola, a classical group of ten roots, is widely described for its potent Vatahara, Shothahara, and Balya actions. Conceptually, combining Majja with Dashmoola in Basti aims at synergistically nourishing depleted tissues while pacifying aggravated Vata and promotes blood circulation to the effected joint. **Aim:** To explore the conceptual basis, therapeutic rationale, and possible mechanisms of Dashmoola Siddha Majja Basti in the management of Vata-dominant degenerative disorders. **Methodology:** This is a conceptual review based on classical Ayurvedic texts, Nighantus, and contemporary interpretations, supported by recent experimental and clinical studies on Dashmoola, Majja, and Basti therapy. **Results and Discussion:** From an Ayurvedic perspective, Dashmoola offers Ushna Virya, a balance of Laghu-Guru Guna, and Shothahara action, making it suitable for alleviating Vata while addressing inflammation and stiffness. Majja,

being Snigdha, Guru, and nourishing, directly supports Majja and Asthi Dhatus, countering their depletion. Administering these through Basti, work on Pakvashaya -enhancing systemic efficacy. Modern research has correlated Dashmoola with antioxidant, anti-inflammatory, and osteoprotective properties, while bone marrow may provide bioactive lipids that support joint and bone health. Conceptually, this aligns with therapeutic goals in conditions such as osteoarthritis, osteoporosis, and avascular necrosis. **Conclusion:** Dashmoola Siddha Majja Basti represents a rational integration of Vata-pacifying and Dhatu-nourishing principles. The clinical study suggests its potential role in blood circulation and degenerative disorders, providing a foundation for future clinical validation and mechanistic research.

Keywords: Dashmoola siddha Majja Basti, Panchkarma, Vatavyadhi, Osteonecrosis

INTRODUCTION

Basti is considered the supreme therapy in Pañcakarma for the management of Vātavyādhi. Among different types, Ayurveda [1, 2]. Majja Dhatu is the sixth among the seven Dhatus (tissues). It occupies a vital role in maintaining strength, immunity, and the functioning of the nervous and skeletal systems. It is primarily located within the cavities of bones (Asthi-Majjagatam). Majja Dhatu is considered to be responsible for Bala (strength), Sneha (unctuousness), and supports the function of Shukra Dhatu. Majja is defined as the unctuous substance filling the Asthi (bone) cavity. It is a Drava Dhatu, unlike Asthi, which is hard.

1)मज्जा स्नेहस्वभावा अस्थिमज्जगतं च। (Ashtanga Hridaya, Sha 3/64)

2)मज्जा नाम अस्थ्यन्तरगतम्, स्निग्धं, पीतवर्णं च । (Charaka Samhita, Chikitsa 15/16)

3)मज्जा बलं स्नेहमायुश्च कुर्यादोषक्षयं च। (Sushruta Samhita, chikitsa 15/16)

Majjā Basti has special significance in disorders related to Asthi-Majjā Dhātu (bone and marrow tissue) like Sandhigata Vāta, Asthi-Majjā gata Vāta, Pakṣāghāta, and degenerative neurological conditions. When prepared with Dashmoola decoction, it provides synergistic Vāta-sāmaka, Sothahara, and Balya effects [3-6].

Dashmoola Siddha Majjā Basti-

Ingredients in Detail

1. Dashmoola (Group of Ten Roots)

Brihat Panchamoola (big roots): Bilva, Agnimantha, Shyonaka, Patala, Gambhari.

Laghu Panchamoola (small roots): Shalaparni, Prishnaparni, Brihati, Kantakari, Gokshura.

Properties: Vata-Kapha hara, Shothahara (anti-inflammatory), Vedanasthapana (analgesic), Rasayana [7].

Modern correlation: Contains alkaloids, flavonoids, and glycosides with anti-inflammatory and antioxidant activity.

2. Siddhartha Taila (Tila Taila / Sesame Oil-based medicated oil)

Properties: Snigdha (unctuous), Sukshma (penetrating), Vatahara, Mamsa-Majja dhatu poshaka (nourishes muscles and marrow) [8]. Helps carry the active principles deep into tissues.

3. Majja (Bone Marrow / Majja Sneha)

Extracted from long bones of goat or Buffallow, processed with ghee/oil for medicinal use.

Properties: Guru, Snigdha, Balya, Brimhana – strengthens bones to promote blood circulation and rejuvenation of muscles, and nerves.

Ayurvedic texts describe Majja Dhatu as the precursor to Shukra Dhatu, hence, Majja nourishes vitality and immunity. Bone marrow (usually of goat/calf/fowl), indicated for Asthi-Majjā vardhana, Balya, Rasayana [9].

4. **Madhu (Honey)**-Yogavahi (catalyst), Yogadhara (binding agent). Helps homogenize oil and decoction, improving

absorption through the mucosa. Antimicrobial, anti-inflammatory properties.

5. **Saindhava Lavana (Rock Salt)**-Enhances penetration of medicine into tissues. Relieves rigidity, acts as Anulomana (improves bowel movement).

Preparation of Dashmoola Siddha Majjā Basti [10]

2. Method of Preparation

1. **Preparing the Majja Sneha:** Animal bones of goat are purchased from certified vendors, which are brought to the hospital and cleaned with water. The large bones are partially crushed and put into a large vessel with water, and boiled under approximate 100 degrees temperature at which temperature bone marrow melts. This melted bone marrow mix is combined with Dashmoola kwath.

ग्राम्यान्पौदकानां तु भित्वाऽस्थीनि पचेज्जले ॥
तं स्नेह दशमूलस्य कषायेण पुनः पचेत् ॥
च.चि.28/124_125

2. Preparing the Decoction

2.1 **Herbal Ingredients:** The decoction is made from dashmoola (shyonak, agnimanth, brahati, kantkari, etc) herbs.

2.2 **Water:** The herbs are boiled in water 16 times of (taken herbal drugs) to extract their medicinal properties, then boiled up to 1/4th water remaining, creating the decoction.

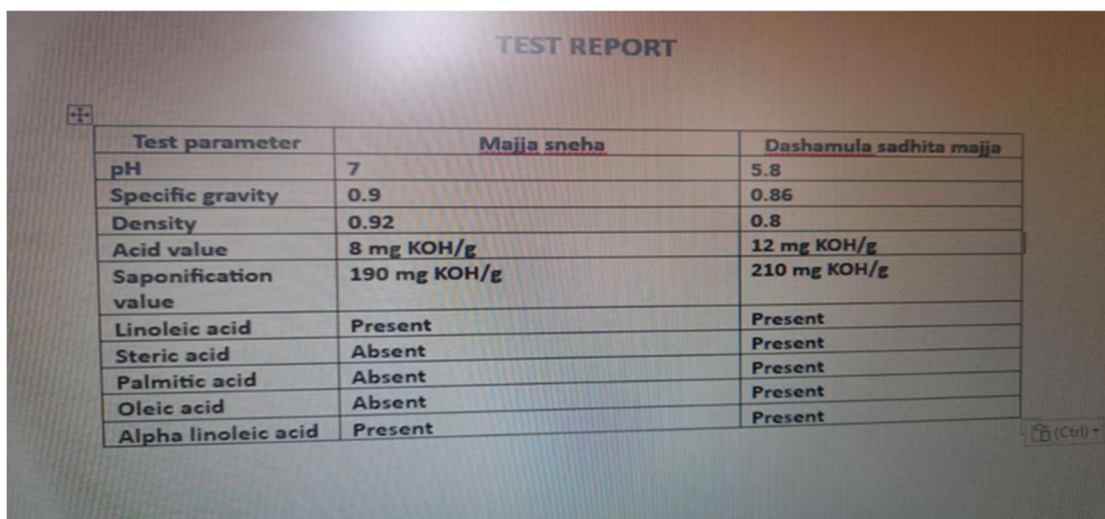
2.3 Filtering: The decoction is then filtered to remove any solid particles.

3. Preparation of Kalka - Take Vidharigandha, Krunch Churna, Ashwagandha Moola, and form a kalka from it. Then, this kalka is boiled with milk.

4. Processing with Dashmoola:

The extracted majja is further processed with the same amount of Dashmoola decoction and kalka, then boiled up to half of the taken combination (only majja remains).

LABORATORY TEST REPORT OF MAJJA



Test parameter	Majja sneha	Dashamula sadhita majja
pH	7	5.8
Specific gravity	0.9	0.86
Density	0.92	0.8
Acid value	8 mg KOH/g	12 mg KOH/g
Saponification value	190 mg KOH/g	210 mg KOH/g
Linoleic acid	Present	Present
Steric acid	Absent	Present
Palmitic acid	Absent	Present
Oleic acid	Absent	Present
Alpha linoleic acid	Present	Present

Mode of Action (Pharmacodynamics)

1. Ayurvedic Perspective

Mode of Action

Vata pacification at its root (Pakvashaya). It act as Shothahara & Shulahara action which reduces inflammation and pain. Its Brimhana & Rasayana action nourishes deeper tissues (Asthi, Majja). By Agni Deepana and Ama pachana it restores metabolism, reduces toxins. By Srotoshodhana it clears blocked channels, improves tissue perfusion. Thus, it simultaneously alleviates symptoms (pain,

stiffness, swelling) and restores tissue health (nourishment of joints and marrow).

2. Modern Perspective

(a) Pharmacological Actions

Dashmoola – rich in alkaloids, tannins, flavonoids, glycosides. Anti-inflammatory → suppresses prostaglandins & cytokines. Analgesic → reduces nerve excitability. Antioxidant → prevents free radical-induced degeneration. Siddharthaka (mustard) – contains glucosinolates, allyl isothiocyanates. Anti-inflammatory and antimicrobial. Stimulates local circulation → reduces

stiffness. Improves metabolism of fats and proteins. Majja (bone marrow extract) is Rich in lipids, fatty acids, and micronutrients. Provides regenerative and nourishing action to bone and nerve tissues. Acts like intra-articular lubrication when absorbed systemically.

(b) Mechanism via Rectal Route

Rectum has a rich vascular & lymphatic supply → drug absorbed rapidly. Lipid-soluble components of oil & marrow → diffuse into systemic circulation. Acts on the enteric nervous system → regulates autonomic & neuroendocrine balance, reduces pain signaling.

(c) Systemic Benefits

Anti-inflammatory – reduces joint inflammation, swelling. Analgesic – pain relief in arthritis, neuralgia, spondylosis, sciatica. Nutritional – provides essential fatty acids for cartilage & nerve repair. Regenerative – prevents degeneration of bone marrow and joint tissues. Immune-modulatory – balances immune response in chronic inflammation.

1. Local Action at Pakvāśaya

Dashmoola reduces Sotha (inflammation) and pacifies Vāta-Kapha. Saindhava opens blocked channels (Srotoshodhana). Sneha and Majjā nourish Asthi-Majjā Dhātu.

2. Systemic Action

Basti acts through the enteric nervous system and rectal mucosal absorption. Active principles from Dashmoola and Majjā reach systemic circulation. Modulates neuro-hormonal and immune functions.

3. Nourishment & Regeneration

Majjā provides essential lipids, proteins, micronutrients → supports myelin sheath & synaptic repair. Helps in degenerative disorders like Osteoarthritis, Lumbar spondylosis, and Neuropathies.

4. Vāta-Śamana Effect

Rectifies deranged Apāna Vāta regulates bowel, bladder, and neurological functions. Balances Prāṇa Vāta and Udāna Vāta through systemic circulation.

5. Rasayana & Balya Effect

Enhances strength, immunity, and functional capacity of joints, bones, and nervous system.

DISCUSSION

1. Ayurvedic Rationale

In Ayurveda, Basti is considered Ardha Chikitsa (half of all therapies), primarily because of its ability to directly influence Vata dosha, which is located in the Pakvashaya (large intestine) [11]. Most disorders of Asthi and Majja Dhātu (bones and bone marrow), such as osteoarthritis, osteoporosis, spondylosis, and avascular necrosis, are Vata-dominant conditions (Asthi-Majjagata Vata) [12].

Dashmoola: possesses Tridosahara (especially Vata-Kapha shamaka), Shothahara (anti-inflammatory), and Vedanasthapana (analgesic) properties [13].

Siddharthaka (white mustard): due to its Ushna and Tikshna properties, it helps in removing Srotorodha (obstructions) and reducing Ama (toxic by-products) [14].

Majja (bone marrow/oil): acts as Brimhana and Poshana, nourishing deeper tissues and strengthening Asthi and Majja Dhatu [15].

Thus, the formulation simultaneously pacifies aggravated Vata, reduces pain and inflammation, and nourishes depleted tissues.

2. Pharmacological Action (Modern Viewpoint)

Pharmacological studies validate the classical claims:

Dashmoola: Contains alkaloids, tannins, flavonoids, and glycosides with anti-inflammatory, analgesic, and antioxidant activities [16].

Siddharthaka: Mustard seeds are rich in glucosinolates and allyl isothiocyanates, known for anti-inflammatory, rubefacient, and circulatory stimulant effects [17].

Majja (bone marrow extract/oil): Provides essential lipids and fatty acids, acting as nutritive and regenerative support for bones, cartilage, and nerves [18].

The rectal route of administration allows rapid absorption through the hemorrhoidal venous plexus, bypassing first-pass metabolism and ensuring systemic effects [19].

3. Therapeutic Role

The combined action of Shamana (pacifying Vata) and Brimhana (nourishing Asthi–Majja Dhatu) makes Dashmoola Siddha Majja Basti effective in:

Sandhigata Vata (osteoarthritis): relieves stiffness, reduces crepitus, and improves mobility [20]. Katishoola/Grudhrasi (sciatica & lumbar spondylosis): reduces radiating pain and nerve irritation. Asthikshaya (osteoporosis): provides strength and nourishment to weakened bones. Avascular necrosis (AVN): supports bone marrow regeneration and reduces limping [21-22].

5. Strengths and Limitations

Strengths: Dual action — Shamana (Vata pacification) and Brimhana (tissue nourishment); natural, holistic, safe compared to steroids/NSAIDs; directly targets root pathology (Pakvashaya).

Limitations: Requires repeated sittings; slow onset compared to allopathic analgesics; lack of large-scale randomized controlled trials. The unique combination of Dashmoola and Majjā addresses both Doṣa and Dhātu.

Classical references emphasize Basti as the prime therapy for Vāta, while modern

pharmacology validates rectal drug delivery as an effective route for systemic absorption. Studies indicate that Dashmoola has anti-inflammatory, analgesic, and antioxidant properties, while bone marrow extracts are neurotrophic and stem cell supportive. Thus, Dashmoola Siddha Majjā Basti serves as a bridge between classical Ayurveda and modern regenerative therapy.

CONCLUSION

Dashmoola Siddha Majjā Basti is a specialized form of Basti combining the anti-inflammatory and Vāta-sāmaka properties of Dashmoola with the nourishing and regenerative qualities of Majjā Dhātu. Its holistic action on Pakvāśaya, Asthi-Majjā Dhātu, and the nervous system makes it highly effective in degenerative musculoskeletal and neurological disorders. Dashmoolā Siddha Majja Basti shows promising results in managing AVN, by relieving symptoms, enhancing joint function, and possibly delaying or preventing surgical intervention. Impacts on bone quality and symptom relief in a case of osteoporosis suggest potential for Basti therapy in Asthi-Majjagata Vāta conditions beyond AVN. Dashmoolā Siddha Majja Basti appears to work by nourishing bone and marrow tissues, pacifying Vāta through Ayurvedic properties, enhancing

local blood flow, and facilitating toxin removal.

REFERENCES

- [1] Caraka Samhitā, Siddhi Sthāna, Chapter 1.
- [2] Suśruta Samhitā, Sūtra Sthāna, Chapter 38.
- [3] Astanga Hṛdaya, Sūtra Sthāna, Chapter 19.
- [4] Ashtanga Hridaya, Sha 3/64
- [5] Charaka Samhita, Chikitsa 15/16
- [6] 6.|Sushruta Samhita, chikitsa 15/16
- [7] Asthanga Hridaya sutrasthana 15/20-24
- [8] Sushruta Samhita, sutasthana 45/112
- [9] Charak Chikitsa 28/124
- [10] Charak Chikitsa 28/124-
- [11] Sharma, P. V. (Trans. & Ed.). (2008). Charaka Samhita: Text with English translation (Vol. II, Siddhi Sthana). Varanasi: Chaukhambha Orientalia.
- [12] International Ayurvedic Medical Journal. (2020). A review on Asthi-Majjagata Vata: Conceptual study. International Ayurvedic Medical Journal (IAMJ), 8(12), xxx–xxx
- [13] Singh, J. (2016, November 1). Dashmool (Dashamoola or Dashamula) benefits, uses & ingredients. AyurTimes.

- [14] Hebbar, R. (2016, March 25). Ama in Ayurveda – concept, meaning, definition, formation, symptoms. Easy Ayurveda.
- [15] Chaturvedi, P., Dungarwal, S., & Songara, T. S. (2022). Role of Dashmool Siddha Majja Basti in the management of avascular necrosis of femur head – a case study (Asthi Majja Gata Vata). International Journal of Research in Academic World (IJRAW), 1(15), 106–109.
- [16] Singh, J. (2016, November 1). Dashmool (Dashamoola or Dashamula) benefits, uses & ingredients. AyurTimes.
- [17] Raghuram, Y. S., & Manasa, B. A. M. S. (2019, January 14). Ayurvedic Panchakarma treatment: Introduction, benefits, dosha relation. Easy Ayurveda.
- [18] Preeti Chaturvedi, S., Dungarwal, S., & Songara, T. S. (2022). Role of Dashmool Siddha Majja Basti in the management of avascular necrosis of femur head – a case study (Asthi Majja Gata Vata). International Journal of Research in Academic World, 1(15), 106–109
- [19] Raghuram, Y. S., & Manasa, B. A. M. S. (2024, November 29). Routes of administration of medicines to eliminate the Doshas, according to Acharya Vagbhata. Easy Ayurveda.
- [20] International Ayurvedic Medical Journal. (2020). A review on Sandhigata Vata (osteoarthritis): Ayurvedic management and clinical perspectives. International Ayurvedic Medical Journal (IAMJ)
- [21] Asian Journal of Medical Research. (2021). Clinical evaluation of Asthikshaya (osteoporosis) and the role of Ayurvedic interventions. Asian Journal of Medical Research (AJMR),
- [22] Chaturvedi, P., Dungarwal, S., & Songara, T. S. (2022). Role of Dashmool Siddha Majja Basti in the management of avascular necrosis of femur head – a case study (Asthi Majja Gata Vata). International Journal of Research in Academic World (IJRAW)