

MANAGEMENT OF ASTHI-MAJJA GATA VATA W.S.R AVASCULAR NECROSIS - A CASE STUDY

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ABSTRACT

Introduction: In Ayurveda, the concept of Vata plays a pivotal role in the manifestation of diseases. Asthi-Majjagata Vata, involving vitiation of Vata in the Asthi and Majja Dhatus, leads to conditions like joint pain, stiffness, and degeneration. **Objective:** To explore the efficacy of Ayurvedic treatments in managing Asthi-Majjagata Vata, focusing on internal and external therapies for alleviating symptoms of Athi majjagata vata. **Material and Methods:** A 30-year-old male patient with k/c/o bilateral hip AVN presented with progressive pain and restricted movement. Treatment included Abhyanga with Murivenna taila, Shashtika Shali Pinda Sweda, Vaitarana Basti and Marmani Vati, alongside oral medications such as Navajeevana Rasa and Balamoola

Rasayana. **Discussion:** The treatments targeted Vata pacification and tissue nourishment, promoting joint health and alleviating pain. Abhyanga and Swedana provided relief through their anti-inflammatory and nourishing effects, while Vasti and Marmani Vati supported bone regeneration and pain reduction. **Conclusion:** Ayurvedic therapies offer a comprehensive approach for managing Asthi-Majjagata Vata, effectively reducing symptoms and improving quality of life in patients.

KEYWORDS: Asthi-Majjagata Vata, Vata, Gata vata.

INTRODUCTION

The foundational principles of Ayurveda revolve around the concept of *Tridosha*, which includes *Vata*, *Pitta*, and *Kapha*—three fundamental components that govern all physiological processes and pathological changes within the body. Among these, *Vata* holds paramount significance due to its intrinsic property of *Gati* (movement). The dynamic nature of *Vata* plays a crucial role in maintaining health and contributes significantly to the

manifestation of diseases. This abnormal movement and mislocalization of *Vata* within the body are referred to as *Gatavata*. *Gatavata* pertains to the condition where *Vata*, localized in a specific *Sthana*, becomes vitiated, leading to distinct symptoms associated with that site. The chapter on *Vataja Vyadhi* in classical Ayurvedic texts outlines 80 types of diseases, most of which involve the *Chalatwa Guna* of *Vata*. The *Brihatrayee* and *Acharya Yogaratnakar* have provided detailed and systematic explanations of *Gatavata*, categorizing it broadly into two types.

- **Ashayagata Vata** - Involving sites such as the *Amashaya*, *Pakwashaya*, and *Panchendriya*.
- **Dhatugata Vata** - Affecting the *Saptadhatu*, such as *Asthi Dhatu* and *Majja Dhatu*.

The relationship between *Asthi Dhatu* and *Vata Dosha* is described as *Ashraya-Ashrayee Sambandha*, wherein the *Vruddhi* of *Vata* predominantly occurs in *Asthi Dhatu*. Similarly, *Majja Dhatu* has a unique relationship with *Kapha Dosha*. The vitiation of *Vata* within the *Dhatus* may result in symptoms indicative of a single disease, a group of diseases, or even opposing disease manifestations. Analyzing these concepts, it becomes evident that the term *Gata* carries two implications: one referring to movement and the other to occupation. Thus, the *Gatatva* of *Vata* signifies both the undesirable movement and the inappropriate occupation of *Vata* in specific anatomical or physiological locations. This dual nature underpins the pathogenesis and symptomatology of *Vata* disorders in Ayurveda.

Asthi majjagata vata Lakshana

- ***Bhedo Asthi Parvanam***: Severe, breaking-type pain in bones and joints.
- ***Sandhi Shula***: Joint pain.
- ***Mamsakshaya***: Muscular wasting.
- ***Balakshaya***: Generalized weakness.
- ***Aswapna Santataruk***: Disturbed sleep due to persistent pain.
- ***Sandhi Shaithilyam***: Looseness or affliction of joints.
- ***Shiryanti Iva Cha Asthini Durbalani***: Progressive destruction and weakening of bony tissue.

Ayurvedic texts, particularly the *Brihatrayee*, recommend both internal and external therapies for managing *Asthi-Majjagata Vata*. These therapies aim to balance *Vata Dosha*, nourish depleted *Dhatus*, and promote joint and bone health. Key treatment modalities

include: *Snehapana*, *Abhyanga*, *Basti*, *Rasayana*, Dietary and Lifestyle Adjustments (Inclusion of *Vata-pacifying* foods, avoiding dryness and cold, and engaging in gentle physical activity to strengthen joints and muscles).

MATERIALS AND METHODS

CASE REPORT

A 30-year-old male, previously asymptomatic, presents with a two-year history of insidious onset and progressive severe bilateral hip pain radiating to the lower limbs. The symptoms are accompanied by difficulty in standing and ambulating. Additionally, he reports stiffness, restricted range of motion, and painful movements of the hips and bilateral lower extremities.

HISTORY OF PRESENT ILLNESS

The patient, previously asymptomatic until two years ago, developed insidious onset, progressively worsening bilateral hip pain associated with stiffness. The pain, initially mild, has progressed to severe intensity, resulting in significant functional impairment, including difficulty standing and walking without support. He also reports low back pain radiating to both lower limbs, associated with numbness. The symptoms are exacerbated by activities such as forward flexion, standing, and ambulation. The patient has developed an antalgic gait secondary to severe pain. He was previously evaluated at multiple healthcare facilities, diagnosed with avascular necrosis (AVN) of the hips, and underwent various treatments without significant improvement. He now presents to SDMCAH, Udupi, for further evaluation and management.

FAMILY HISTORY: Nothing significant.

PERSONAL HISTORY

- Appetite – Good
- Sleep - Disturbed
- Micturition - 4-5 times /day
- Bowels – Constipated
- Habits- alcoholic since 10yrs

PAST HISTORY: Nothing significant.

PHYSICAL EXAMINATION

- Built - Normal built
- Nutritional status - Good
- Temperature – A febrile
- Blood pressure - 130/80 mm hg
- Pulse rate – 80/pm regular
- Respiratory rate - 18 /min
- Skin - Normal
- Hair - Normal
- Eye - Normal
- Ear - Normal
- Nose - Normal
- Icterus - Absent
- Pallor - Absent
- Clubbing - Absent
- Cyanosis – Absent

PRATYAKSHA PAREEKSHA

Darshana: Gait: antalgic

Skin : dry

Sparshana : warmth :present

Tenderness : present

Gandha : *prakruta*

Shabda : *prakruta*

DASAVIDHA PARIKSHA

- ***Prakriti :*** *Vata, Pitta*
- ***Vikriti***

Hetu: *Ahara-* excess of *Madhyapana, Ruksha Ahara.*

Vihara –Vega Dharana, Ratri Jagarana.

Dosha: *Shareera-* *vata pradhana tridosha*

Manasika – Raja –Tama Dushti.

Dushya: *Rasa, Asthi, Majja.*

Vikara prakruthi: *Vata*

Desha: Jangala

Kala: Throughout the day, excess in early morning and Sheeta Kala

Bala: Madhyama

- **Sara:** Madhyama
- **Samhanana :** Madhyama
- **Pramana :** Madhyama, height -5.3ft, weight- 78kg
- **Satva :** Madhyama
- **Satmya :** katu rasa pradhana
- **Aharashakti:** Madhyama
- **Vyayama Shakti:** Avara
- **Vaya:** Madhyama

ASHTAVIDH PARIKSHANA

- *Nadi - Sarpa gati (82 /min)*
- *Mala - vibanda*
- *Mutra -4-5TIMES/day*
- *Jivha - Niram*
- *Shabda - Spastha*
- *Sparsha - Khara*
- *Drik -Spastha*
- *Akriti - Madhyam*

NIDANA PANCHAKA

1. HETU

- **Ahara:** katu rasa pradhana ruksha ahara, Madhyapana since 15 yrs.
- **Vihara:** Ratri Jagarana, Vegadharana.

2. POORVAROOPA

- Pain in Kati, Uru, Pradesha
- *Supthi*

3. ROOPA

- *Asthi and parva bedha*

- *Mamsa and bala kshaya*
- *Nidra nasha*
- *Satata vedhana*

4. **SAMPRAPTI**

Sankya: 2 – Ashaya gatavata

Dhatu gata vata

Vikalpa: ruksha, parushya, khara guna of vata.

Pradhana: vata

Vidhi: Nija/ Agantu - nija vyadhi

Sadhyasadya: Yappa

Bala kala: Bala – Daruna

Kala – Sheeta kala, early morning.

Contionous pain throughout day

5. **UPASHAYA/ ANUPASHAYA**

Upashaya - rest

Anupashaya – walking

LOCAL EXAMINATION

- Gait-Antalgic
- Tenderness-L3 – 4 & L4 – 5
- Para-spinal Muscles tenderness - Present
- SLR-Rt. – Positive at 60⁰, Lt. – Positive at 65⁰

INVESTIGATIONS

- Hb%-14.3 gm
- E.S.R.-24 mm/hr
- RBS-97 mg/dl
- LFT : GLOBULIN:4.4gm/dl

RADIOLOGICAL

- M.R.I. – avascular necrosis of the bilateral femoral head stage II/III.

And loss of lumbar lordosis.

ASSESSMENT CRITERIA

- Range of Movement- Goniometer
- Pain-Visual Analogue Scale (VAS)
- Overall improvement-Harris Hip – Scale

TREATMENT**AT I.P.D. LEVEL**

S.No.	Procedure	Drug	Dose	Duration
1	Abhyanga	Murivenna Taila	200 ml	45 minutes
2	Swedana	Shashtika shali pinda sweda	1000 ml	20 minutes
3	Kala Basti	Vaitarana basti + Sahacharadi anuvasana basti	500 ml 60 ml	7 days 8 days
4	Marmani vati	Reference-sahasrayoga gutika prakarana 53,AFI VOL1	2 tablets	30 min

AT O.P.D LEVEL

SL.No.	Medicine	reference	Dose	Duration	Time of Administration
1	Tab. Navajeevana rasa	Siddha bhesaja manimala	2 TAB	2 times a day	After food
2	Cap. Balamoola rasayana	A.H.Ut 39/15-23	2 caps	2 times a day	After food
3	Cap.Gandha Tailam	A.H.Ut 27/36-41	2 caps	2 times a day	After food
4	Tab.Kaishora Guggulu	Sh. Sa. M -7/70-81	2 tabs.	2 times a day	After food
5	Marmani vati	Reference-sahasrayoga gutika prakarana 53,AFI VOL1	2 tabs	30 min	-

ASSESSMENT CRITERIA**RANGE OF MOVEMENT (BL HIP – JOINT)**

S.No.	Activity	Range	B.T.	A.T. - 1	A.T. - 2	A.T. - 3
1.	Abduction	30 ° 50 °	28 °	32 °	35 °	35 °
2.	Adduction	20 ° 50 °	19 °	22 °	30 °	30 °
3.	Flexion	110 ° 120 °	60 °	90 °	100 °	100 °
4.	Extension	10 ° 15 °	7 °	9 °	12 °	12 °
5.	Internal Rotation	30 ° 40 °	28 °	35 °	34 °	36 °
6.	External Rotation	40 ° 60 °	37 °	40 °	40 °	45 °

PAIN

S.No.	Severity	Score	B.T.	A.T. - 1	A.T. - 2	A.T. - 3
1	Bed-ridden / Pain even at Rest	0				
2	Marked Pain with serious limitation of activities	10				
3	Moderate, tolerable Pain with Some limitation of activity requiring pain medication	20	10	10	20	20-30
4	Mild pain with no effect on daily activities, rarely moderate pain with unusual activity	30				
5	Slight, occasional, no compromise in activities	40				

LIMP

SL.No.	Severity	Score	B.T.	A.T. - 1	A.T. - 2	A.T. - 3
1	Severe	0	0	5	5	8
2	Moderate	5				
3	Slight	8				
4	None	11				

DISTANCE WALKED

SL.No.	Severity	Score	B.T.	A.T. - 1	A.T. - 2	A.T. - 3
1	Confined to Bed / Chair	0	5	5	5-8	8
2	Indoor only	2				
3	2 – 3 blocks	5				
4	8 – 10 blocks	8				
5	Unlimited	10				

STAIRS

SL.No.	Severity	Score	B.T.	A.T. - 1	A.T. - 2	A.T. - 3
1	Not able to do Stairs	0	0	3	5	5
2	Able to do Stairs using Railings	5				
3	Able to do Stairs without using Railings	10				

RESULT

- The patient has shown notable progress in posture, gait, and pain alleviation. Moreover, the patient reported considerable satisfaction and enhanced comfort, which have substantially improved their ability to carry out daily activities with ease and efficiency.

DISCUSSION

DIFFERENTIAL DIAGNOSES

Vatarakta

Symptoms: Pain, swelling, and redness in joints.

Differentiation: While both conditions involve Vata, *Vatarakta* primarily affects the small joints due to the *Utklesha* of Vata and rakta, whereas *Asthi-Majjagata Vata* affects the *Asthi* and *Majja dhatu* with symptoms of weakness and *Dhatu kshaya*.

Amavata

Symptoms: Joint pain, stiffness, and swelling.

Differentiation: Amavata is more related to the presence of *Ama* and *Vata Vikruti*, whereas *Asthi-Majjagata Vata* is specifically a Vata disorder involving the *Asthi* and *Majja dhatu* associated with *Dhatu kshaya*.

Raktavaha Srotas Dushti

Symptoms: Pain and stiffness in the joints due to poor circulation, usually linked with systemic conditions.

Differentiation: *Raktavaha Srotas* disorders cause poor circulation in the joints and tissues, while *Asthi-Majjagata Vata* involves *Asthi* and *Majja dhatu Dushti*, leading to pain and stiffness due to Vata's role in movement and dryness.

Bala Kshaya

Symptoms: Muscle weakness, fatigue, and pain.

Differentiation: *Bala Kshaya* involves the general loss of strength, often in the *Mamsa* and *Rasa Dhatu*, but the specific *Asthi* and *Majja Dhatu* involvement seen in *Asthi-Majjagata Vata*.

The differential diagnosis of *Asthi-Majjagata Vata* requires careful examination of the patient's symptoms, *Dosha* imbalances, and anatomical sites of involvement. A comprehensive assessment using Ayurvedic diagnostic methods like *Nadi Pariksha*,

Darshana, Sparshana, and Prakriti is essential to distinguish between similar conditions and to provide an effective treatment plan focused on restoring balance in the *Asthi* and *Majja Dhatu*.

TREATMENT PROCEDURES

Abhyanga

Murivenna Taila is highly effective in managing *Asthi-Majjagata Vata* due to its *Vata*-pacifying and nourishing properties. It is *Snigdha* and *Sukshma*, countering the *Ruksha* and *Khara* qualities of *Vata* involved in present condition. Regular *Abhyanga* with *Murivenna* nourishes the *Asthi dhatu* and strengthens the *Majjadhatu*. It alleviates pain and stiffness seen in conditions. The oil's anti-inflammatory ingredients, such as *Haridra* and *Kumari* promote tissue repair, joint lubrication, and overall skeletal health, making it ideal for *Asthi-Majjagata Vata Vyadhi*. It is inferred that applying *Sneha* to the skin for approximately 900 *Matra Kala* (around 3-5 minutes) can reach the *Majja Dhatu*, potentially slowing the *Dhatu kshaya* processes affecting different *Dhatus*.

Swedana

Shashtika Shali Pinda Sweda is highly effective in managing *Vata* disorders, especially those involving *Asthi* and *Majja*. The therapy uses *Shashtika Shali*, milk, and various herbal decoctions, providing *Snigdha* and *Ushna* qualities to counteract the *Ruksha* and *Sheeta* nature of *Vata* involved in present condition. Therapeutic heat enters deeper tissues like *Mamsa Dhatu* and neutralizes the *Sheeta Guna* of *Vata* and increases the *Dhatvagni*, hence *Kati* gets proper nutrition from *Purva Dhatu* and *Asthi, Majja Dhatu*. *Dosha* reaches equilibrium phase and becomes more stable and patients get relief from all the presenting symptoms. Furthermore, it clears *Srothosanga* and promotes the smooth transport of vitiated *Doshas* from the *Shakha* to the *Koshta* for elimination. Additionally, *Swedana* possesses the natural ability to reduce *Gaurava* and *Stambha*, which are the main presenting symptoms in present case.

Vasti

As a tree irrigated at its root level attains nourishment for the whole tree, In the same way, *Vasti* drugs given through *Guda marga* nourishes complete shareera.

The therapeutic benefits of *Vaitarana Basti* in the context of *Asthi majjagatha vata* are significant, particularly in its ability to pacify *Vata Dosha*. This treatment effectively

addresses the imbalances that contribute to *Asthi Vikruthi* and joint discomfort associated with *Asthi majjagatha vata*.

Furthermore, the formulation of *Vaitarana Basti* includes potent ingredients such as *Gomutra* and *Saindhava Lavana*, which are known to enhance circulation. The detoxifying properties of *Gomutra* and *Eranda Taila* facilitate the removal of *Srothosanga*, that hinder microcirculation and thereby promoting *Dhatu poshana*. Additionally, the nourishing qualities of *Tila Taila* and *Eranda Taila* support the health of *Asthi* and *Majja Dhatu*, while fostering *Dhatu Poshana*. The anti-inflammatory and analgesic effects of these ingredients also contribute to pain relief, ultimately aiding in the prevention of further involvement of other *Dhatu*.

CONCLUSION

By employing *Dashavidha Pareeksha* and *Ashtavidha Pareeksha*, along with *Pratyaksha*, *Anumana*, and *Aptopadesha Pramanas*, the *Tara-Tama Bhavas* of dosha avasta associated with *Asthi-Majjagata Vata* have been systematically analyzed and understood. It is well-established that *Vata Dosha*, among the *Tridoshas*, plays a pivotal role as it regulates the functions of both *Pitta* and *Kapha*. A disturbance in the homeostasis of *Vata* can result in the manifestation of various *Vikara Asthi-Majjagata Vata* refers to the vitiation of *Vata Dosha* within the *Asthi Dhatu* and *Majja Dhatu*, leading to symptoms such as *Shoola*, *Kshaya*, and *Vyadhi Kshamata Hani*. Classical Ayurvedic texts outline proven *Chikitsa Krama* for the effective management of this condition, focusing on balancing *Vata* and nourishing the affected *Dhatus* through appropriate *Ahara*, *Vihara*, and *Aushadha*. Despite the absence of significant changes observed on MRI findings, the patient has exhibited noticeable improvements in *Gati*, *Vyavahara Shakti* (functional ability), and overall satisfaction, demonstrating the efficacy of the holistic Ayurvedic approach.

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