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AYURVEDIC MANAGEMENT OF ASTHIMAJJAGAT VATA W.S.R TO AVASCULAR NECROSIS OF FEMORAL HEAD - A CASE STUDY

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ABSTRACT

Avascular necrosis (AVN) of the femoral head is a rare skeletal condition characterized by vague symptoms originating from the hip joint or lower pelvis. It involves a disruption of blood supply leading to ischemic necrosis, progressive osteocytic death, collapse of the joint surface, and loss of hip functionality. The symptoms of AVN align closely with those described as Asthi-majjagatavata in Ayurvedic texts by Acharya Charaka, manifesting as breaking pain in bone, hip joint pain, muscle wasting, weakness in the affected joint, and persistent pain-induced insomnia. **Objective**- Ayurvedic Management of Avascular Necrosis of Femoral Head w.s.r. to Asthi-majjagatavata. **Materials and Methods**- A 26 year old male pt. visited our hospital with the chief complaint of pain in bilateral hip joint (left>right) and groin region. For that Dashmool majja basti karma was planned along with Gandha tail. The patient received Dashmool majja basti for 30 days period of three cycles along with Gandha tail as a oral medication as the part of their treatment regimen. **Result**- Better relief was found in symptoms of avascular necrosis and significant betterment in the value of the Hip range of motion. **Conclusion-** It was found that Dashmool majja basti along with Gandha tail is effective in the treatment of avascular necrosis of femoral head (Asthi-majjagatavata).

Keywords: AVN, *Asthi-majjagatavata*, Dashmoolmajja *Basti,* Ayurvedic Management

INTRODUCTION

Osteonecrosis is a degenerative bone condition characterized by the death of cellular components of the bone secondary to an interruption of the subchondral blood supply. Also known as avascular necrosis, it typically affects the epiphysis of long bones at weight-bearing joints. The most common sites for AVN are the femoral head, knee, talus, and humeral head. The hip is the most common location overall. Advanced disease may result in subchondral collapse, which threatens the viability of the joint involved. Therefore, early recognition and treatment of osteonecrosis are essential. This activity discusses the etiology and pathogenesis of the disease, presentation, and treatment options of the most common forms of osteonecrosis**.**

Avascular necrosis (AVN), also known as osteonecrosis, aseptic necrosis, or ischaemic bone disease, refers to the death of bone tissue. It commonly affects the epiphysis of long bones, with the femur being the. In the early stages, AVN may be asymptomatic; however, as the condition advances, patients often experience mild to severe pain, particularly in the groin, which may radiate down to the anteromedial thigh. Furthermore, changes in gait and a reduced range of motion, including limitations in abduction, adduction, flexion, and extension, are commonly observed. In Ayurveda, Avascular Necrosis (AVN) is correlated with Asthi-majjagata Vata due to the similarity in signs and symptoms **[1]**.

The symptoms of Asthimajjagata Vata include Bhedoasthiparvanam (breaking-type pain in bones), Sandhishoola (joint pain), Mamsakshaya (muscular wasting), Balakshaya (weakness), Sandhi Shaithilayam (joint laxity), Aswapanasantatruka (sleeplessness caused by persistent pain), and Shiryantiva cha Asthinidurbalani (destruction of bone tissue leading to generalized weakness) **[2]**.

Dhatus like Asthi and Majja in Prakrutha avastha does Dharana and Poorana to body and in Vikrutha avastha produce leads to Asthi shoola, Asthi kshaya, Asthi shoonyata etc. Gatatva (movement/passage) is a phenomenon which is used for explaining about the Samprapthi that results in Dhatu kshaya (diminished). The Lakshana of Asthi Majja gata vata is Bhedo asthi parvani (cracking of bones and joints) Sandhi shoola (piercing pain in the joints), Mamsa bala kshaya (diminution of muscle tissues), Aswapna (insomnia) Santata ruja (constant pain). The disease that which comes under these are Kati graha (low back stiffness), Gridhrasi (sciatica).

Acharaya charaka while explaining about treatment for Asthimajja gata vata, emphasizes to consider both Asthi and Majja for treating through Snehan in both Bahya (externally) and Abhyantara

(internally). While explaining about Asthi pradoshaja vikaara he explains to adopt treatment of Panchakarma in which he gives Importance to Basti, containing Ghritha and Ksheera as main Dravya.

Dhatu Karma Asthi dhatu – support to maintain posture. The Peshi, Sira, Snayu all take their support from Asthi thus making the structure firm and strong **[3]**. Asthi when gets Prakopa (aggravated) produce Vikaara (diseases) like Adhyasthi dhanta (extra growth of tooth), Shoola (pain), Vivarnata (discolouration) **[4]**, etc. Majja dhatu – it helps in providing Snehana, Bala, Asthi poorana (fills up cavity) and does Shukra poshana (nourishes semen) **[5]** due to the Prakopana produces symptoms like Ruk, Brahma, Moorcha, Tamaha, Arumshi **[6]**, etc. Dhatus have two forms i.e. Asthayi dhatu(non-stable) and Sthayi dhatus (stable). In Dhatugatatwa, the Sthayi dhatus are weakened and aggravated Vata gets lodged there in. Due to the same fact, line of treatment also should be to improve the quality of Dhatus (tissues) and to pacify the Vata. According to the complexity of the pathogenesis, Dhatu gatatva may produce symptomatology suggesting a single disease, a group of disease or even diseases which are opposite in nature. However it may be, the clinical presentation may be generally having the nature of Dhatus dourbalya.

Concept of Gatatva Acharya Vaghbhata explains about Gatatva of Doshas as, the vitiated Doshas cause vitiation of rasa and other Dhatus and also vitiates Malas which in turn vitiate Srothas from the vitiated Srothas manifest the diseases **[7]**. Analyzing the above referred meanings and synonyms it can be concluded that the word Gata has two implications. One related with the movement and the other related with occupying. Hence 'Gatatva' of Vata implies an undesirable movement of Vata and it's unnecessary occupation of certain sites. Asthi dhatu and Vata dosha have Ashra ashrayee Sambandha (inter relationship) because of this Vata vrudhi (aggravation) takes place in Asthi dhatu and, Majja dhatu has Ashraya Ashrayee bhava Sambhandha with Kapha dhatu **[7]**. The Vyadhi that come under Lakshana of Kati vedana are Gridhrasi, Kati shoola, Kati graha, Sandhi gata vata, Snayu gata vata, Guda agata vata, Sannipataja jwara etc.

Case Study Details

A 26-year-old male patient come to our hospital with

Chief complaints - pain in lower back region, pain in bilateral hip joint radiating towards both knee joints, stiffness, difficulty in movements, and restricted movements since 2 years.

Associated complaints- sleeplessness, constipation

History of present illness-Pt. The patient claimed to be healthy before one and a half years, then he developed pain in his left hip joint gradually. The pain remains constant throughout the day and aggravated during the night hours. The patient is diagnosed with AVN grade 2 of bilateral femoral head with the aid of MRI by an orthopaedic surgeon and had recommended for surgical intervention but the patient is reluctant. After that, he approached to pt. Khushilal Sharma Government Hospital, Bhopal. Past History- History of allopathic treatment 1.5 years

Family History- Absent

Personal history

Addiction	**Alcoholism since 10-12 year**
Occupation	**Student**
Appetite	**good**
Sleep	**Distribution**
Bowel	**Irregular**
Micturation	**Normal**

General Examination:

Pallor	**Absent**
Icterus	**Absent**
Cyanosis	**Absent**
Clubbing	**Absent**
Oedema	**Absent**

Local EXAMINATION:

- Gait- Limpic
- SLR- Rt. Leg- 50 degree, Lt. leg- 60 degree
- FABER'S test on Rt. And Lt. is present
- FNST test on Rt. And Lt is present
- Lumber – Flexion and Extension are restricted

Ashtavidha Pariksha:

Nadi	**Vata -Pitta**
Mutra	**Prakrut**
Mala	**Snigdha**
Jivha	**Saam**
Shabdha	**Spasth**
Sparsha	**Samasheetoshna**
Drink	**Prakrut**
Aakriti	**Madhyam**

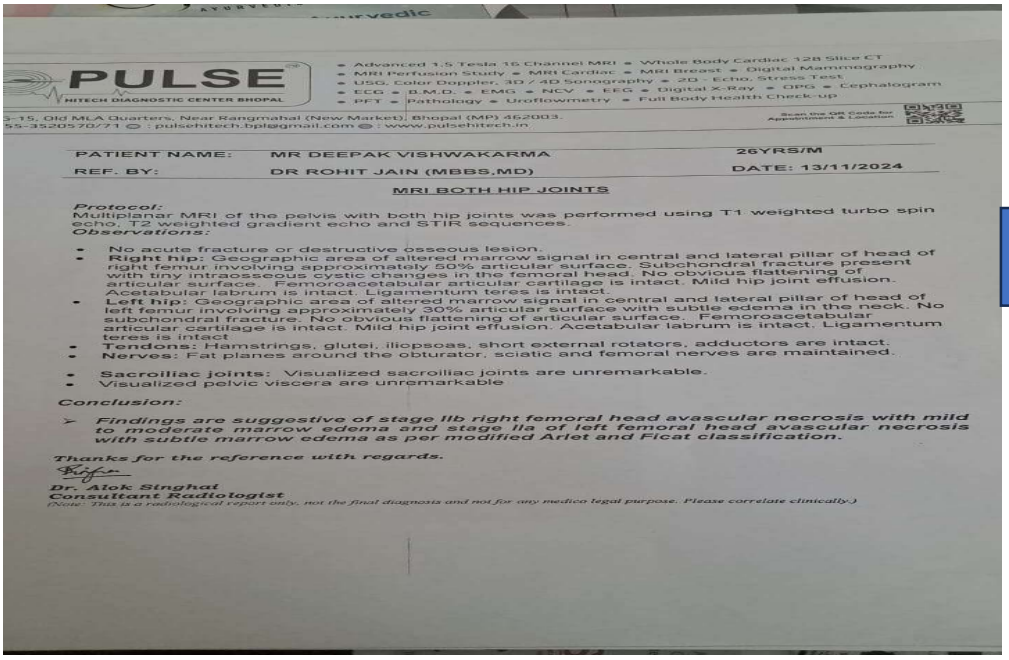
Samprapti Ghatak

Dosha	**Vata-Kapha**
Dushya	**Asthi,Majja, Sandhi, Rakta, Sira,Snayu**
Srotas	**Asthivaha, Majjavha, Medovaha**
Srotodushti	**Sang**
Rogamarg	**Marmaasthisandhi**
Adhishthan	**Asthi-Sandhi**
Udhabhavasthan	**Aam-Pakwashaya**
Vyakta-sthan	**Asthi-Sandhi**

Investigation

MRI -PELVIS

MRI scan (13/11/2024) Findings are suggestive of stage IIb right femoral head avascular necrosis with mild to moderate marrow edema and stage lla of left femoral head avascular necrosis with subtle marrow edema as per modified Arlet and Ficat classification.



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PATIENT NAME: MR DEEPAK VISHWAKARMA 26YRS/M
REF. BY: DR ROHIT JAIN (MBBS,MD) DATE: 13/11/2024

MRI BOTH HIP JOINTS

Protocol:
Multiplanar MRI of the pelvis with both hip joints was performed using T1 weighted turbo spin echo, T2 weighted gradient echo and STIR sequences.

Observations:

- No acute fracture or destructive osseous lesion.
- **Right hip:** Geographic area of altered marrow signal in central and lateral pillar of head of right femur involving approximately 50% articular surface. Subchondral fracture present with tiny intraosseous cystic changes in the femoral head. No obvious flattening of articular surface. Femoroacetabular articular cartilage is intact. Mild hip joint effusion. Acetabular labrum is intact. Ligamentum teres is intact.
- **Left hip:** Geographic area of altered marrow signal in central and lateral pillar of head of left femur involving approximately 30% articular surface with subtle edema in the neck. No subchondral fracture. No obvious flattening of articular surface. Femoroacetabular articular cartilage is intact. Mild hip joint effusion. Acetabular labrum is intact. Ligamentum teres is intact
- **Tendons:** Hamstrings, glutei, iliopsoas, short external rotators, adductors are intact.
- **Nerves:** Fat planes around the obturator, sciatic and femoral nerves are maintained.
- **Sacroiliac joints:** Visualized sacroiliac joints are unremarkable.
- Visualized pelvic viscera are unremarkable

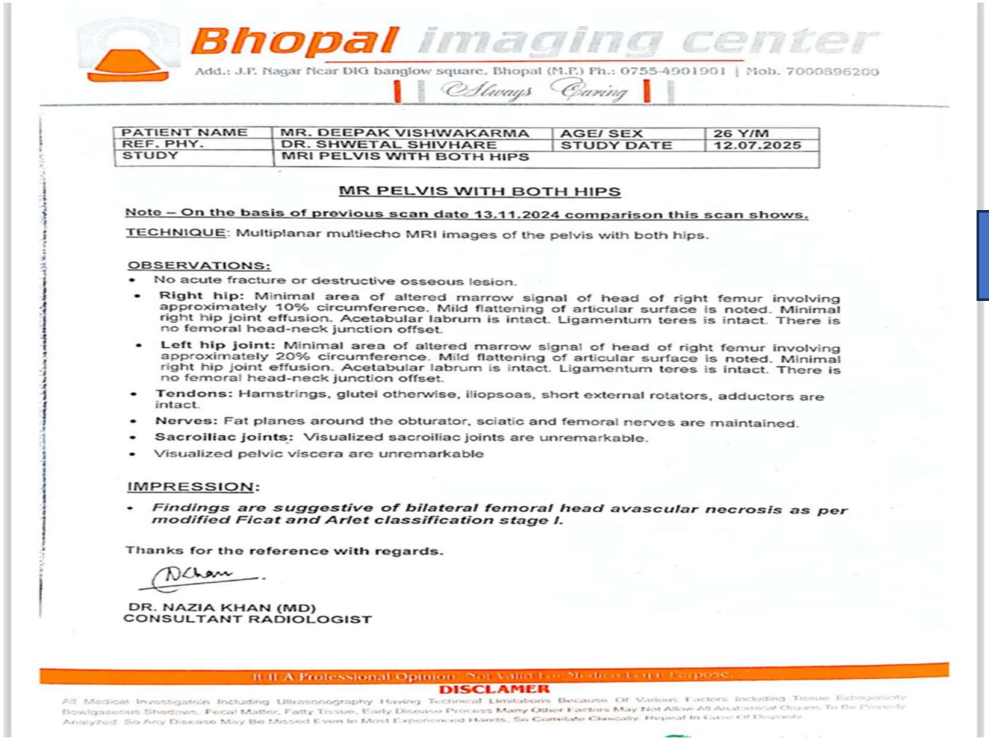
Conclusion:

➢ *Findings are suggestive of stage IIb right femoral head avascular necrosis with mild to moderate marrow edema and stage lla of left femoral head avascular necrosis with subtle marrow edema as per modified Arlet and Ficat classification.*

Thanks for the reference with regards.

Dr. Alok Singhai
Consultant Radiologist
(Note: This is a radiological report only, not the final diagnosis and not for any medico legal purpose. Please correlate clinically.)

Before



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PATIENT NAME	MR. DEEPAK VISHWAKARMA	AGE/ SEX	26 Y/M
REF. PHY.	DR. SHWETAL SHIVHARE	STUDY DATE	12.07.2025
STUDY	MRI PELVIS WITH BOTH HIPS		

MR PELVIS WITH BOTH HIPS

Note – On the basis of previous scan date 13.11.2024 comparison this scan shows.

TECHNIQUE: Multiplanar multiecho MRI images of the pelvis with both hips.

OBSERVATIONS:

- No acute fracture or destructive osseous lesion.
- **Right hip:** Minimal area of altered marrow signal of head of right femur involving approximately 10% circumference. Mild flattening of articular surface is noted. Minimal right hip joint effusion. Acetabular labrum is intact. Ligamentum teres is intact. There is no femoral head-neck junction offset.
- **Left hip joint:** Minimal area of altered marrow signal of head of right femur involving approximately 20% circumference. Mild flattening of articular surface is noted. Minimal right hip joint effusion. Acetabular labrum is intact. Ligamentum teres is intact. There is no femoral head-neck junction offset.
- **Tendons:** Hamstrings, glutei otherwise, iliopsoas, short external rotators, adductors are intact.
- **Nerves:** Fat planes around the obturator, sciatic and femoral nerves are maintained.
- **Sacroiliac joints:** Visualized sacroiliac joints are unremarkable.
- Visualized pelvic viscera are unremarkable

IMPRESSION:

- ***Findings are suggestive of bilateral femoral head avascular necrosis as per modified Ficat and Arlet classification stage I.***

Thanks for the reference with regards.

DR. NAZIA KHAN (MD)
CONSULTANT RADIOLOGIST

It Is A Professional Opinion, Not Valid For Medico Legal Purposes

DISCLAMER

All Medical Investigation Including Ultrasonography Having Technical Limitations Because Of Various Factors Including Tissue Echogenicity, Bowl gaseous Shadows, Fecal Matter, Fatty Tissue, Early Disease Process Many Other Factors May Not Allow All Anatomical Organs To Be Properly Analyzed. So Any Disease May Be Missed Even In Most Experienced Hands. So Correlate Clinically. Repeat In Case Of Doubts.

After

CRITERIA FOR ASSESSMENT

SUBJECTIVE CRITERIA

1.VAS (visual analogue scale) for pain

Parameter	Criteria	Grading
Pain (vas scale)	No pain	0
	(1-3) mild	1
	(4-6) Moderate	2
	(7-10) severe	3

1. MRC Muscle scale

Parameter	Criteria	Grading
MRC Muscle power	No power	0
	Flicker of contraction only	1
	Movement with gravity eliminated	2
	Movement against gravity	3
	Movement against gravity & some resistance	4
	Normal power	5

3. GAIT

Parameter	Criteria	Grading
GAIT	Normal gait	0
	Pain occasionally	1
	Walk without support, Mild pain	2
	Walk with support, Severe pain	3
	Unable to walk	4

4.SLEEPLESSNESS

Parameter	Criteria	Grading
Sleeplessness	Normal sound sleep	0
	Sleep disturbed 1-2 times in night	1
	Sleep disturbed 3-4 times in night	2
	Difficulty in falling asleep due to pain	3
	Difficulty in staying asleep due to continuous pain	4

5. STIFFNESS

STIFFNESS	SCORE
NO STIFFNESSS	0
STIFFNESS NO MEDICATION	1
STIFFNESS RELIVED BY EXTERNAL APPLICATION	2
STIFFNESS RELIVED BY MEDICATION	3
STIFFNESS IS NOT RESPONDED BY MEDICINE	4

OBJECTIVE CRITERIA

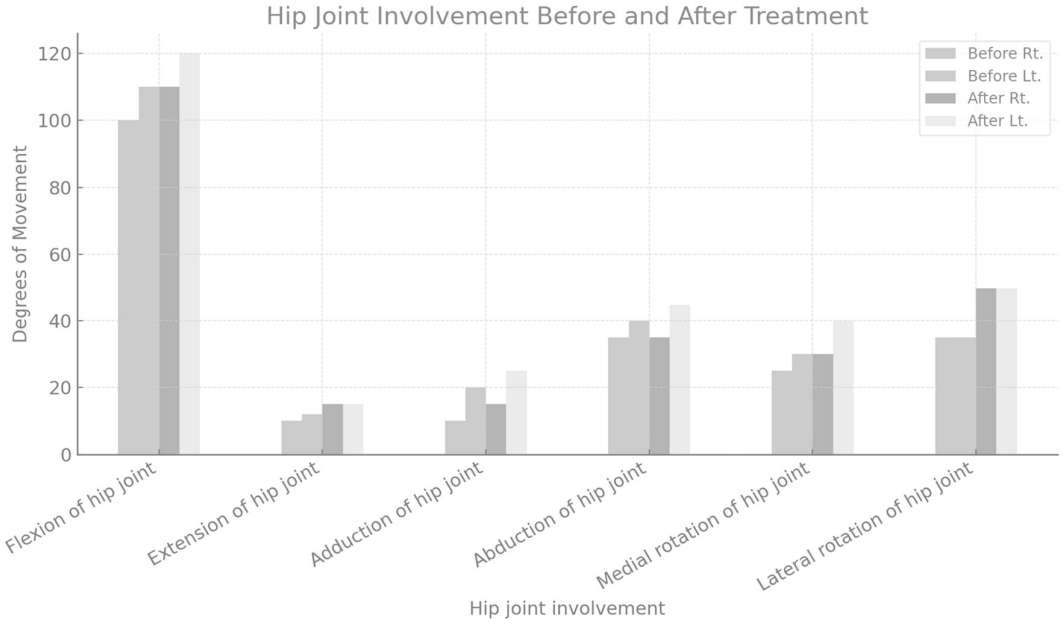
S. No.	Range of movement of hip joint	Normal range
1	Flexion of hip joint	110^0 -120^0
2	Extension of hip joint	10^0_15^0
3	Abduction of hip joint	30^0 -50^0
4	Adduction of hip joint	20^0- 30^0
5	Medial rotation of hip joint	30^0-40^0
6	Lateral rotation of hip joint	40^0-60^0

Treatment Regimen

S. No.	Treatment	Drug	Dose	Duration	Anupan
01	Bati (Kala Basti)	Dashamooladisiddha Majja Bati	100ml after light breakfast	For 30 Days Consecutive for 3 cycles in period of 15 days interval	
02	Shaman Medicines	Gandha tailam 600mg	2 BD	60 DAYS	Luke warm water

OBSERVATIONS:- Ranges of joint motion in bilateral hip joint for the case of Avascular necrosis hip joint involvement Before and After Treatment.

S. No.		Before Treatment		After Treatment	
	Hip Joint involment	Rt	Lt	Rt	Lt
1	Flexion of hip joint	100	110	110	120
2	Extension of hip joint	10	12	15	15
3	Adduction of hip joint	10	20	15	25
4	Abduction of hip joint	35	40	35	45
5	Medial roatation of hip joint	25	30	30	40
6	Lateral rotation of hip jiont	35	35	50	50



RESULTS

Clinical Feature	Before Treatment	After Treatment
Bhedoasthiparvanam (Breaking pain of Joint)	3	2
Mamskshaya (Muscular power of affected joint)	2	4
Balakshaya (Weakness of affected joint /Limping)	3	1
Aswapna santata ruk (Insomnia due to pain)	3	1

DISCUSSION

Dashmoolasiddha Majja Basti- Describe by Acharya charak in chikitsasthan in context of vatavyadhi. Majja basti is a type of Sneha basti which strengthens and nourishes the asthi dhatu (bone tissue), Dashamooladi Majja Basti having Madhura, Tikta ras, Katu vipaka and Ushna virya properties, they all together enhance the properties of majja and help in balancing the aggravated vata dosha which favours normal functioning of Dhatvagni, increase nutrition for the Asthi and majjadhatu. Majja is processed with Dashmoola kwath and Milk, which improve and nourishes the blood, bone tissue & bone marrow of the femoral head. Milk has guru pichhila guna and possesses the effect of jeevaneeya (Rejuvenation properties), Rasayan (Immunomodulation properties) and Brimhana (Nourishing). Dashmool contents having vatashamak and vedana sthapak properties.

Gandha Tailam- contains Krishna Tail along with Madhuka, Kustha, Tagar, Agru, Devdaru, Manjistha etc. which increases Bone marrow density by reducing Serum Osteocalcin and inhibits Bone Reabsorption in conditions of Osteoporosis. Sesamin in Gandha tailam promotes osteoblastic differentiation by regulating the Wnt/β-catenin pathway and improves bone structure by exhibiting therapeutic and preventive effects on Osteoporosis. Sesamol and Sesamolin reduce oxidative stress on bone and enhance antioxidant performance due to osteoprotective effect of phytoestrogens. Sesame seed and their metabolites bind to bone estrogen receptors (ER) and induce transcription of estrogen-responsive genes, which promote bone strength through the production of bone matrix proteins & heal fractures.

CONCLUSION

As there is no permanent conservative cure for AVN, procedure like core-decompression in the initial stage and Hip replacement in the later stage are the only option in modern medical science. In this case study after the completion of treatment, we can conclude that Dashmool majja basti shows significant result in symptoms of AVN, reduces of pain, stiffness, tenderness and increases ROM of hip joint and Gandha tail promote the balance of Vata, provides pain relief, improves circulation, and supports overall musculoskeletal system of the patient.

REFERENCES

[1] Agnivesha, Charka Samhita, Chakrapanidatta, Vaidya Jadavaji Trikamji Acharya, Chaukhamba Sanskrit Sansthan, Varanasi, 2022, Chikitsasthana, 28/33, Pg:617.

[2] Agnivesha, Charka Samhita, Chakrapanidatta, Vaidya Jadavaji Trikamji Acharya, Chaukhamba

Sanskrit Sansthan, Varanasi, 2022, Chikitsasthana, 28/33, Pg:617. 3. Agnivesha, Charka Samhita, Chakrapanidatta, VaidAyurveda offers a wide range of treatment modalities for managing Asthi-majjagata Vata. Here, we present a case that was successfully treated using Ayurvedic approaches for managing Vata Vyadhi.

[3] Sushruta, Sushruta Samhita, Sutrasthana,15/4-1, edited from beginning to 9th adhyaya of Chikitsastana by Jadavji Trikamji Acharya and the rest by Narayan Ram Acharya kavyatirtha, Chaukhambha Orientalia, Varanasi, Reprint:2009, 67.

[4] Agnivesha, Charaka, Dridhabala, Charaka samhita, suthra sthana,28/16, edited by Vaidya Jadavji Trikamji Acharya, Chowkambha Orientalia, Varanasi; reprint 2011,179.

[5] Ibidem Sushrutha samhita (3) suthra sthana, 28 /33, 617.

[6] Ibidem Charaka samhita (5) suthra sthana, 28 /33, 617.

[7] Vagbhata, Astanga Hrudaya, suthra sthana,19/86, edited by Pt.Hari Sadasiva Sastri Paradakara Bhisagacarya, Chaukhamba Sanskrit Sansthan, Varanasi, Reprint:2009, 285.