

**AYURVEDA MANAGEMENT OF ASTHIMAJJAGATA VATA W.S.R. TO AVASCULAR NECROSIS OF FEMORAL HEAD – A CASE STUDY**

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**ABSTRACT**

Avascular Necrosis (AVN) is a disease that affects bone due to the cessation of blood supply to the bone tissue. AVN also called osteonecrosis, aseptic necrosis, or ischemic bone necrosis which finally leads to the destruction of bone. In the present era, it is one of the most challenging conditions in orthopedics. It is most frequently occurring in young and middle-aged adults. If the cessation of blood supply to the bone is not stopped then this process eventually causes the bone to collapse. In the early stage, it is an asymptomatic disease but with time, there is constant pain with a decrease in the function of joints. In *Ayurveda*, we can correlate AVN with *Asthi Majjagata Vata* due to similar signs and symptoms. *Ayurveda* may be helpful in the management of AVN by giving *Shaman* and *Shodhan Chikitsa*. In the present study, a female patient having avascular necrosis of the femoral head has been treated with *Vatashamak* drugs and *Panchakarma* procedures.

**Keywords:** AVN, *Asthimajjagata Vata*, *Ayurvedic* management, Femoral head

## INTRODUCTION

AVN is a degenerative bone condition characterized by the death of cellular components of the bone secondary to an interruption of the subchondral blood supply<sup>[1]</sup>. AVN typically affects the epiphysis of long bones at weight-bearing joints such as the femoral head, knee, talus, and humeral head. Males are more prone than females. It generally affects the people in the age group 30 to 50 years. AVN is a disease that results from the temporary or permanent loss of blood

supply to the bone it may be the result of injury, alcohol, excessive intake of anti-inflammatory analgesics, and steroid therapy. Some of the diseases which are associated with AVN are Pancreatitis, Diabetes, SLE, HIV, Sickle cell anemia, etc.

Signs and symptoms of *Asthimajjagata Vata* given by *Aacharya Charaka*<sup>[2]</sup> are similar to clinical features of AVN.

<i>Asthimajjagata Vata</i>	AVN
<i>Bhedoasthiparvanam</i>	Breaking type of pain in bones
<i>Sandhishool</i>	Joint pain
<i>Mamsakshaya</i>	Muscular wasting
<i>Balakshaya</i>	Weakness
<i>Aswapana Santataruk</i>	Disturbed sleep due to continuous pain
<i>Sandhi Shaithilya</i>	Laxity of joints

### Case Report:

A 22-year-old female came to OPD of Pt. KLS Govt. Ayurveda hospital Bhopal with complaints of severe pain in both right and left hip joint, groin region, difficulty in standing from sitting position and slight pain in the bilateral knee joint, muscle wasting for 1 year



with aggravation of pain in the night and stiffness in the morning. She had also abnormal walking with limping gait. Her condition became worsened eventually and she was advised to surgery, but she refused and opted for *Ayurveda* treatment. She is suffering from sickle cell anemia and AVN is well recognized to occur in sickle -cell disease. Involvement of the femoral head is the commonest clinical manifestation in sickle cell anemia.

### Investigation:

#### Hemoglobin Electrophoresis –

Adult HB (AO) – 1.9%  
 Foetal HB (HbF) – 21.9%  
 HBA2 – 2.8%  
 Sickle HB (HbS) – 72.6%  
 HB D – NIL

Reticulocyte count – 8.50%

#### RADIOLOGICAL REPORT

MRI – Irregular articular margins with adjacent marrow changes in the head of the femur which shows III grade changes in the Right hip joint and IV grade changes in the Left hip joint.

X-ray

#### Local Examination:

1. Tenderness present in bilateral hip region (R>L)
2. Significant loss in the range of movement.
3. Gait-Trendelenburg sign positive
4. Changes are shown in the dimensions of both legs.
5. Painful internal rotation.
6. Involuntary Movement- Absent
7. Muscle wasting is seen in the left lower limb.
8. Tone – Hypotonia is present on the bilateral lower limb.

### O/E – Ashtavidha Pariksha

Nadi	Vata Kaphaj
Mutra	Prakrut
Mala	Snigdha
Jivha	Saam
Shabdha	Prakrut
Sparsha	Samasheetoshna
Drik	Prakrut
Aakriti	Madhyam

### SAMPRAPTI GHATAK:

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

### Treatment:

The patient has been given both *Bahya* and *Abhyantar Chikitsa*. For *Shamana* and *Shodhan Chikitsa* the patient had administered-

DRUG	DOSE	DURATION
Abha Guggulu	2 BD	8 weeks
Brihat Vatachintamanirasa	1 BD	first 4 weeks
Panchatiktaghrit Guggulu	2 BD	4 weeks
Aswagandha Churna	1 gm	8 weeks
Chopchini Churna	500mg x BD	
Godanti Bhasma	500mg	
Rasnasaptak Kwath	20 ml	4 weeks
Rasrajeshwar Rasa	1BD	last 4 weeks

### PANCHAKARMA:

Sarvanga Snehan-Swedana	Vatashamak Tail	21 days
Dashmool Majja Basti	----	21 days
Shastishali Pinda Sweda	----	15 days
Matra Basti	Narayan Tail	15 days

### OBSERVATIONS:

#### Observation in Range of Movement of Hip joint

Range of movement		BT	AT
Abduction (30° - 50°)	Right	0	15
	Left	0	20
Adduction (20° - 50°)	Right	0	10
	Left	0	15

<b>Extension</b> (10° -15°)	Right	5	10
	Left	10	10
<b>Flexion</b> (110°-120°)	Right	100	110
	Left	105	120
<b>Internal</b> (30°-40°)	Right	10	15
	Left	0	10
<b>External</b> (40°-60°)	Right	10	10
	Left	10	20

### Showing Harris Hip Score

S.NO.	Criteria	Assessment	Right Leg		Left Leg	
			BT	AT	BT	AT
1	Pain	None or ignores it (44)  Slight, occasional, no compromise in activities (40)  Mild pain, no effect on average activities, rarely moderate pain with unusual activity; may take aspirin (30)  Moderate pain, tolerable but concedes pain. Some limitations of ordinary activity or work. May require occasional pain medication stronger than aspirin (20) Marked pain, serious limitation of activities (10)  Totally disabled, crippled, pain in bed, bedridden (0)	30	40	30	44
2	Limp	None (11) Slight (8) Moderate (5) Severe (0)	11	11	0	5
3	Support	None (11) Cane for long walks (7) Cane most of the time (5) One crutch (3) Two canes (2) Two crutches or not able to walk (0)	11	11	11	11
4	Distance walked	Unlimited (11) Six blocks (8) Two or three blocks (5) Indoors only (2) Bed and chair only (0)	2	8	2	11
5	Sitting	Comfortably in an ordinary chair for 1 hour (5) On a highchair for 30 minutes (3) Unable to sit comfortably in any chair (0)	5	5	5	5

6	Enter public transportation	Yes (1) No (2)	1	1	1	1
7	Stairs	Normally without using a railing (4) Normally using a railing (2) In any manner (1) Unable to do stairs (0)	1	2	1	2
8	Put on Shoes and Shocks	With ease (4) With difficulty (2) Unable (0)	0	2	2	4
9	Absence of Deformity (All yes = 4; Less than 4 =0)	Less than 30° fixed flexion contracture YES NO Less than 10° fixed abduction YES NO Less than 10° fixed internal rotation in extension YES NO Limb length discrepancy less than 3.2cm YES NO	0	0	0	0
10	Range of Motion	Flexion (140°) Abduction (40°) Adduction (40°) External Rotation (40°) Internal Rotation (40°)	3 0 0 0 0	3 0 0 0 0	3 0 0 0 0	3 0 0 0 0
11	Range of Motion Scale	211° – 300° (5) 161°- 210° (4) 101° – 160° (3) 61° - 100° (2) 31° – 60° (1) 0° – 30° (0)				
	TOTAL	100	73	83	55	86

### Scoring of Harris HIP Score

- < 70 Poor conditions of hip
- 70 – 79 Fair condition of the hip
- 80 – 89 Good condition of the hip

## DISCUSSION

Here we discussed the medication of *Asthimajagata Vata* which was given to the patient.

### 1.Panchtikta Ghrit Guggulu-

*Panchtikta Ghrit Guggulu* is a combination of *Giloy*, *Kantkari*, *Patol* and *Vasa*. It has anti-inflammatory and anti-toxin properties. It balances the *Tridoshas* and purifies the blood.

### 2. Abha Guggulu-

It is a combination of *Babbula*, *Shunthi*, *Pippali*, *Maricha*, *Amalaki*, *Haritaki*, *Vibhitaki*, and *Suddh Guggul*.

It has a great anti-inflammatory property and is helpful to relieve pain in muscles, joints, ligaments, and bones.

### 3. Rasarajeswar Rasa-

It contains *Swarna Bhasma*, *Shuddha Vishamusthi*, *Ashwagandha*, *Rasasindoor*, *Dashmool*, and *Shodhit Guggul*. It is an excellent pain reliever and anti-inflammatory property. It improves the strength of muscles and bones.

### 4.Brihat Vatachintamani Rasa-

It is a combination of *Swarna Bhasma*, *Rajat Bhasma*, *Loha Bhasma*, *Abhrak Bhasma*, *Praval Bhasma*, *Mukta Bhasma*, *Rasa Sindoor* and juice extract of *Kumari*. It is used in the treatment of *Vata dosha* and alleviates pain and stiffness.

### 5. *Rasnasaptak Kwatha-*

It contains *Rasna, Erand, Devdaru, Punarnava, Aargwadh and Guduchi*. It alleviates pain, swelling, and stiffness of joints.

### 6. *Shastishali- Pinda Swedan* <sup>[3]</sup>.

It is a unique *Ayurveda* therapy that is performed *Ekanga or Sarvanga* with the bolus of boiled *Shastika* rice dipped in *Bala Mool Kwatha and Ksheer*. Even though it is a *Swedan* process, it has *Brihmana* properties and is useful to strengthen, nourish and support bones, muscles, joints, and nerves. This therapy tones up and nourishes the body tissues and enhances the flexibility and movement of joints.

## CONCLUSION

*Dashmool Majja Basti* along with *Sarvang Snehan Swedan* showed remarkable symptomatic relief in the features of AVN. After that *Shastishali Pinda Sweda and Matra Basti with Narayana Tail* also had tremendous results. From this study, we can conclude that treatment based on *Ayurveda* guidelines AVN can be effectively managed, and the patient's quality of life can be improved. For further and for larger duration better assessment there is a need to conduct the study on a large number of patients.

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