



PANCHAKARMA THERAPY IN THE MANAGEMENT OF AVASCULAR NECROSIS OF BILATERAL FEMUR HEAD: A CASE STUDY

MADHU^{1*} GYAN PRAKASH SHARMA² POOJA KUMARI DHAKAR³

^{1*}PG Scholar, Department of Panchakarma, PGIA Jodhpur, Rajasthan, India

²Head of Department, Department of Panchakarma, PGIA Jodhpur, Rajasthan, India

³PG Scholar, Department of Panchakarma, PGIA Jodhpur, Rajasthan, India

Corresponding Email id: madhu17beniwal@gmail.com Access this article online: www.jahm.co.in

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ABSTRACT:

Avascular necrosis is the destruction of bone tissue brought on by a temporary or permanent absence of blood supply to the bone. Avascular necrosis most frequently affects the femoral head. According to *Ayurveda*, AVN is associated with *Astimajjagata Vata* (musculoskeletal diseases) under *Vatavyadhi*. Avascular necrosis is linked to chronic steroid usage, excessive alcohol consumption, and related injuries. Early stages might not have any symptoms. Eventually, lying down or putting weight on the injured joint may cause pain. The goals of AVN treatment are to preserve structure, function, relieve pain, and enhance quality of life. There are numerous surgical procedures used in allopathy to treat AVN, including drilling and inserting bone grafts, To treat the issue, modified Whitman or Colonna reconstructions and prosthesis insertion are performed, however all of these surgeries are expensive and have a bad prognosis. Our facility used *Ekanag Abhyanga* (Local Oleation), *Nadi Swedana* (Local Fomentation), *Nitamba Basti*, and *Patra Pinda Sweda* to treat an AVN case with bilateral femoral heads. The patient was given a diagnosis based on evaluation criteria i.e VAS score, Range of movement and was then monitored for symptomatic improvements both before and after therapy. The patient's restored health was miraculous. The treatment significantly reduced discomfort, soreness, stiffness, and gait issues. In the treatment of *Astimajjagata Vata Ekanag Abhyanga* (Local Oleation), *Nadi Swedana* (Local Fomentation), *Nitamba Basti* and *Patra Pinda Sweda* have high beneficial and cost-effective validity. Numerous Special *Panchakarma* treatments, in addition to palliative drugs, have miraculous effects and can enhance quality of life in patients with avascular necrosis.

Keywords: *Ayurved*, *Astimajjagata*, *VataVyadhi*, Avascular Necrosis, Panchakarma

INTRODUCTION:

Avascular necrosis (AVN) is a condition that progresses and causes the cellular death of bone constituents as a result of a temporary or permanent disruption of the blood supply to the bone^[1]. The body of the scaphoid, carpal, talus, and lunate are the locations that are less frequently affected. The head of the femur is one of the classical sites that is commonly impacted. It frequently affects the hip and is most prevalent in adults between the ages of 30 and 60^[2]. The incidence and frequency of AVN are generally underreported. According to a Japanese survey, between 2500 and 3300 cases of AVN of the hip are reported annually; of these, 34.7% were brought on by corticosteroid usage, 21.8% by excessive alcohol consumption, and 37.1% by idiopathic

mechanisms. Early stages might not have any symptoms. Eventually, lying down or putting weight on the injured joint may cause pain.

Causes of Avascular Necrosis: According to Ayurveda, the *Vata dosha* is the primary cause of *Asthi-majjagatavata/AsthiKshaya*. According to the *Ashrayashrayee Bhava* principle, "*Vata*" and "*Asthi*" are inversely proportionate to one another^[3].

Samprapti (Pathology):

"Weakness in the head and neck of the femur, as well as the hip joint, is caused by a lack of blood supply to the head of the femur." Having "*Vata* aggravating food and behaviors" leads to an accumulation of aggravated *Vata* in the "hip joint," which promotes further deterioration and causes excruciating pain and difficulties in moving the hip joint^[4].

Table No.1 shows the Sign and Symptoms of *Asthi-MajjagataVata/AsthiKshaya*

S.No.	Symptoms ^[5]
1.	<i>Bhedoasthiparvanam</i> (breaking type of pain in bones)
2.	<i>Sandhi Shula</i> (joint pain)
3.	<i>Mamsakshaya</i> (muscular wasting)
4.	<i>Balakshaya</i> (weakness)
5.	<i>Aswapnasantataruka</i> (disturbed sleep due to continuous pain)
6.	<i>Sandhi Shaithilyam</i> (laxity of joints)
7.	<i>Shiryantiva Cha Asthinidurbalani</i> (destruction of bony tissue causing generalized weakness)

MATERIAL AND METHOD:

The patients was selected and registered for case study after their fulfillment of diagnostic

criteria of Avascular necrosis of bilateral hip joint. The literary method is selected from Different *Ayurvedic* Literatures like *Sushruta*

Samhita, Charak Samhita, Ashtang Sangrah evam Astang Hridaya, Ayurvedic journals and internet.

CASE REPORT:

Chief Complaint: Pain in groin and the thigh region of right side associated with Difficulty in walking, sitting, Squatting position along with change in gait i.e limbic gait from 3 months.

H/o Present illness: A 34 year old male patient resident of jodhpur, diagnosed case of AVN (dated 06/01/2023 OPD NO.1206) visited to Dsraru, jodhpur with complaints of Pain in groin and the thigh region more in right side than left side associated with Difficulty in walking, sitting, Squatting position along with change in gait i.e limbic gait and mild knee pain in right side from 3 months. Aggravating factors were; gastric upset, supine posture and rest during night hours.

Past History: No H/o HTN, DMT2, Thyroid disorder, HIV, Hepatitis, HbsAG.

No H/o Trauma, injury.

Personal History: Appetite- Normal and vegetarian

Sleep- Disturbed due to pain

Bowel- Constipation

Micturition- Normal, no burning sensation

Addiction- Opium Addiction and occasionally alcohol intake.

Patient Examination: Location- Right hip joint

Scar- No scar

Tenderness – Present at right inguinal region

Movement range loss- Present as shown in Table no.3

Patient examination was done according to *ayurvedic* and modern examination parameters.

Asthavidha pariksha is done in ayurvedic examination.

Asthavidha Pariksha

Nadi- Vata-Kaphaj & 78/minute, regular

Shabda-Spashta (Clear)

Mala- Prakrit

Sparsha- Samsheetoshna

Mutra- Prakrit

Drika- Prakrit

Jivha- Mala aavrit

Aakriti- Sthoola

Investigations:

1) X-Ray B/L Hip Joint- AP & L

X-Ray shows collapse of the femoral head with joint space narrowing and also shows osteophytes changes.

Present of sclerotic changes in right hip joint.

2) MRI L.S SPINE

MR imaging findings are suggestive of Avascular necrosis of bilateral femoral head (Ficat and Arlet) stage IV on right side and stage II on left side.

Assessment Criteria:

- VAS score- to find out the pain level before treatment and after treatment.
- Sign and symptoms of the *Asthi-Majjagata Vata/Asthi Kshaya*.
- Range of movement with the help of Goniometer.

Table no.2 Panchakarma Treatment:

S.No.	Procedure Name	Days
1.	<i>Ekan abhyanga along Nadi Swedana</i>	07 Days
2.	<i>Nitamba Basti</i>	14 Days
3.	<i>Patra Pinda Sweda</i>	21 Days

Result:

completion of the procedure. Also there is improvement in the range of movement as starting, 6 during the procedure and 3 after shown in the table.

Table no.3 VAS Score before and after treatment with follow up

VAS SCORE	Before treatment	After treatment		
		1 st Follow Up After 10 Days	2 nd Follow Up After 20 Days	3 rd Follow Up After 30 Days
Pain	8	8	6	3

Table no.4 Range of Movement before and after treatment with follow up

Range of movement	Site	Before treatment (in degree)	After treatment (in degree)		
			1 st Follow Up After 10 Days	2 nd Follow Up After 20 Days	3 rd Follow Up After 30 Days
Abduction	Right leg	20	25	32	40
Adduction	Right leg	15	18	21	25
Flexion	Right leg	90	92	109	120
Extension	Right leg	10	12	15	15
Internal rotation	Right leg	20	23	27	30
External rotation	Right leg	25	36	45	50

DISCUSSION:

Avascular necrosis is the destruction of bone tissue brought on by a temporary or permanent absence of blood supply to the bone. Early stages might not have any symptoms. There was no history of trauma or other variables that would have decreased bone composition in this particular case. The patient had a history of opium use. *Ekarang abhyanga* (Local Oleation), *Nadi Swedana* (Local Fomentation), *Nitamba Basti* and *Patra Pinda Sweda*^[6,7] are the selected procedure according to *vata* and *vata-kapha dosha* involvement.

Ekarang abhyanga (Local Oleation)- *Acharya Sushrut* has described in *Chikitsa sthan* that massage helps to pacify both *Vata* and *Kapha dosha*. As *Asthikshay* is having mainly *Vata* and *Kapha* predominant *dosha*, oil massage will help to pacify *doshas*.

Nadi Swedana (Local Fomentation) - Fomentation has qualities to pacify *Vata dosha*. Fomentation helps to balance digestive Agni, remove *Srotorodha* i.e cleanses the channels and help to pacify the pain. *Shola Shanti* is one of the *Samyak lakshana* of *Swedana Karma*. *Swedana* also having its vasodilation effect which helps in improving the blood circulation to the affected joint.

Nitamba Basti- *Nitamba Basti* is *Brimhana* therapy i.e *Snehana* along with *Swedana*.

Snehana in classical texts is described as *Snehana*, *vishyandana*, *mardav*, *Kledakara*, *Jarahara*, *Paushtika*, and *Kapha-Vata Nirodhana*. *Snehana* provides nourishment to *Mamsa*, *Meda*, *Asthi*, and *Majja* and so on. Due to its *snehana* effect it decreases the dryness of *Sira* (veins) and *Snayus* (ligaments) which might help to increase the blood flow and metabolism.

Patra Pinda Sweda^[6,7] - The two primary causes of *Asthimajjagata Vata* is *Vata* and *Kapha*. It was planned in accordance with how *Patra Pinda Sweda* is defined as *Sandhichestakara*, *Srotosuddhikara* and *Kapha Vatanirodhana*. Moreover, the primary complaint was discomfort, which is common in *Asthimajjagata Vata* instances. The purpose of *Patra Pinda Swedana* was to lessen discomfort, stiffness, and edema. On the affected joints, muscles, and surrounding area, it calms *Vata* and *Kapha* and has analgesic and perspirant effects. The *Swedopaga Gana*^[8] of *Acharya Charaka* makes reference to the *patra* used for the *Patra Pinda Swedana*. The *Ushna Virya*, *Snigdha* and *Sukshma Guna* of the drugs in use give them *vatahara* properties.

CONCLUSION:

Avascular necrosis is linked to chronic steroid usage, excessive alcohol consumption and related injuries. Early stages might not have any symptoms. Since there is no permanent

treatment for AVN, the only options are hip replacement in the later stages and core decompression in the earlier stages, both of which have their own drawbacks. The above *Ayurvedic* treatment for AVN shows positive outcome in reducing hip joint pain and restoring range of motion. The procedures are inexpensive and non-invasive. The quality of life for patients can be enhanced through *Panchakarma* therapy.

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