

EFFECT OF PANCHTIKT KSHEER MAJJA BASTI IN MANAGEMENT OF AVASCULAR NECROSIS OF HEAD OF FEMUR (CASE STUDY)

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ABSTRACT

Avascular necrosis is osteonecrosis and is also called ischemic bone disease. AVN of femur head is that the most typical type of necrosis of the bones. the arteries which supply the femoral head area are very tiny and thus area is simply susceptible to injury followed by mere dislocation or a subcapital fracture (near the head) of femur .It generally affects people between age of 30 to50 years. there is no permanent treatment other than hip replacement surgery. Other treatments include physiotherapy and NSAIDS and all the treatments are costly and having poor prognosis. The present case was aimed to evaluate the efficacy of Ayurveda system in the conservative management of AVN.In this present case a 33 year old male was diagnosed with AVN of bilateral hip joint with mild effusion was

managed with sashitik shali swedan and panchtikta ksheer majja basti along with ksheerbala tail Anuvasan basti and other internal medications.Conservative management of AVN through Ayurvedic principles provided significant relief in sign and symptoms and improved quality of life.

KEYWORDS: Asthimajjagata vata, Avascular necrosis of femoral head, panchtikta ksheer majjabasti, Shashtik shali swedana.

INTRODUCTION

Avascular necrosis (AVN) of the femoral head is a rare Skeletal disease usually presenting with vague symptoms from the hip joint or lower pelvis. Avascular necrosis of the femoral head is a condition where limited Collateral circulation, disruption of the blood supply to the head of the femur can lead to ischemic and subsequent necrosis.^[1] This will lead to the progressive death of osteocytes followed by the collapse of the articular surfaces and loss of functionality of the hip joint. It may be referred to with other terms, such as Osteonecrosis, Ischemic necrosis and Osseous ischemia. It commonly Occurs in the femoral head of the hip but can occur in Other skeletal sites such as the knee, shoulder and ankle. Risk factors include Alcoholism, use of corticosteroids and various medical disorders such as sickle cell disease, systemic lupus erythematosus etc.^[2] In Ayurveda, all musculoskeletal Diseases are considered under Vatavyadhi. There are Degradation of bone tissue and bone marrow in AVN and symptoms of AVN are similar to Lakshanas of Asthi Majjagata vata described by Acharya Charaka, that are Bhedoasthiparvanam (breaking type of pain), Sandhishool (hip joint pain), mamskshaya (muscle wasting of affected joint), Balakshaya (weakness in affected joint) and Aswapna santata ruk (Insomnia due to pain).^[3] So through Dosh (Vata), Dushya (Majja Dhatu /bone marrow) and samprapti (Pathogenesis) AVN can be correlated with Asthi Majjagata Vata. There is no such effective and safe conservative management for AVN in modern medicine. Therefore, our case study proposed to research the better therapeutic Ayurvedic approach for the femoral head of AVN through Panchtikta ghrit guggulu, ksheerbala avartit along with panchtikta ksheer majja basti and ksheerbala tail Anuvasan basti.

There is no single pathogenic mechanism leading to avascular necrosis established in modern text. but there is most important known route cause of Osteonecrosis/bone infraction is impaired vascular supply irrespective of cause, which can be considered as *Srotavrodha* (vascular obstruction) which may be due to vitiation of *Meda* and ultimately causes Vata vitiation. Factors responsible for vitiation of Vata, are ultimately responsible for Asthidusthi which causes cracking type of pain in bones and joints in the affected part with restriction of the movements. So, it is clear that Vata plays important role as Vikaraprakrti in AVN. Symptoms of *Majjadusthi or Majjagata Vata*, such as Santata Ruk (continuous pain), are involved in the later stages of AVN if they are not addressed early. All of these factors may contribute to Asthimajja Kshaya, which results in the death of bone tissue and the collapse of bone leading to *Asthimajjagata Vata*. Therefore, avascular necrosis of femoral head can be clinically correlated with *Asthimajjagata Vata*.^[4]

MATERIALS AND METHODS

Selection of patient- patient selected from IPD -Pt.khushilal Sharma govt autonomous Ayurvedic hospital & institute Bhopal.

MATERIALS REQUIRED

Internal Medicine

1. Panchtikta ghrit guggulu 2 BD
2. Brahatvata chintamani ras 1BD
3. Ksheerbala avartit 2 BD
4. Panchtikta ksheer majja basti 30 days along with ksheerbala tail Anuvasan basti

External medicine

1. Patra pinda Swedana bilateral hip joint
2. Shashtika shali swedana

CASE REPORT

A 33 year old male patient visited our hospital with complaints of continuous severe pain in bilateral hip joint. The gait was antalgic and patient also complained reduced Appetite and constipation.

Past History

According to the patient he was healthy before 8 month. patient developed dengue fever before 8 month after 4-5 month of dengue. Then he developed pain and stiffness in bilateral buttocks region severe pain persist in lift hip joint and anterior thigh region. The pain was constant throughout the day. He also went to AIIMS hospital and diagnosed as necrosis of bilateral hip joint and surgical intervention was advised but patient was reluctant and he approached OPD of pt. khushilal Sharma govt autonomous Ayurvedic hospital & institute bhopal.

General examination – At the time of admission in IPD, patient was examined properly and following observation was noted.

BP=130/80mmHg

Pallor – Absent

CVS- S1 S2 Normal

CNS- Conscious, well oriented with name, place and person.

Locomotor System- Movement of hip joint is reduced, SLR of left leg 30⁰ and Right 50⁰, muscle bulk and tone are normal, he was unable to walk more after taking 20 steps.

Investigation reports brought by patient revealed

1. CBC normal range
2. ESR normal
3. X- Ray of hip joint show Avascular necrosis of bilateral hip joint
4. MRI- left Hip hyperintense marrow signals representing edema noted in heads neck of femur and posterior columns roof of acetabulum, there is associated subcortical collapse in anterosuperior aspect of the femoral head. Right hip marrow edema subcortical collapse in posterior superior aspect of the femoral head above imaging findings are in favor of grade 3 AVN of bilateral hip with mild bilateral hip joint effusion.

Grading for Assessment of disease

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The condition of disease was assessed on the basis of Following parameters as per grading.

Stage	Characteristic
0	Normal radiographs, bone scan and MRI
	Normal radiographs, abnormal bone scan MRI
A:mild	<15% of head involvement
B: moderate	15%-30%
C:severe	>30%
	Abnormal radiograph
A: mild	<15% of head involvement
B:moderate	15%-30%
C:severe	>30%
	Sub chondral collapse producing a crescent sign
A: mild	<15% of articular surface
B:moderate	Crescent beneath 15% to 30%
C:severe	Crescent beneath >30%
A: mild	<15% of surface collapsed and depression is <2mm
B:moderate	15%-30% collapsed or 2 to 4 mm depression
C:severe	>30% collapsed or >4 mm depression
	Joint narrowing with or without acetabular involvement
A B or C	Femoral head and estimated acetabular involvement
	Advanced degenerative changes

On the basis of above grading this patient belongs to grade-II moderate stage because of Abnormal radiograph and more than 15% head involvement.

Treatment- The treatment of patient is designed in two steps

(A) Shamana Aushadhies

(B) Panchakarma therapy along with yoga and physiotherapy,

Shamana Aushadhies

1. Brahat vata chintamani ras – 250mg BD
2. Panchtikta ghrit guggulu- 2 tab BD
3. Kaishor guggulu-2tab TDS

Outcome and follow –up

Pain-pain was graded VAS(visual analogue scale).VAS is a uni- dimensional measure of pain intensity here 0 stand for no pain and 10 is severe pain.On the dy of admission pain graded as “9” during the course of treatment the VAS scale improved gradually . At the time of discharge grading of VAS IS “3”.

Range of movement –Initially patient was unable to move 50 steps. patient was limping due to pain but at time of discharge he starts walking more than 200 steps. It signifies *improvement in range of movement.*

S.no	Sign and symptoms	BT		AT	
		Rt. Side	Lt.side	Rt. Side	Lt.side
1.	Flexion of hip joint	10 ⁰	10 ⁰	30 ⁰	40 ⁰
2.	Extension of hip joint	10 ⁰	20 ⁰	40 ⁰	50 ⁰
3.	Abduction of hip joint	10 ⁰	10 ⁰	40 ⁰	30 ⁰
4.	Adduction of hip joint	10 ⁰	15 ⁰	20 ⁰	30 ⁰
5.	Medial rotation	20 ⁰	10 ⁰	30 ⁰	20 ⁰
6.	Lateral rotation	20 ⁰	10 ⁰	30 ⁰	20 ⁰

DISCUSSION

Avascular necrosis is a death of bone tissue because of interference of the blood supply, early on there might be no symptoms complexity may incorporate combination of the bone or near by joint surface. Aetiology may be traumatic or nontraumatic where in nontraumatic caused by occlusion of blood due to intra vesicular or outer compression of blood vessels to reduce blood flow on the femoral head leads to AVN. obstruction of blood might be due to fat embolism because or increased lipid profile or aggregation of dead red blood cells in sickle celled cases which are mostly found. Therefore treatment modalities depend on mostly blood thinner or lipid lowering agents. According to Ayurveda point of view there is no direct co- relation with avascular necrosis but clinical presentation indicate towards dominance of Vata Dosh and Vikruti (vitiation) of Asthi Dhatu (bony tissue). In AVN, the blood (Rakta Dhatu) supply to the femoral head is decreased due to any type of Margavrodha (occlusion of blood

vessels) ultimately leading to necrosis. Margavrodha is also responsible to aggravate Dhatu. In advance stage, due to continuous Vata Dosha (due to necrosis) imbalance it is further responsible for causing vitiation of Pitta and Kapha. So Basti is first line of treatment of Vata Dosha as well as Pitta, Kapha Dosha and Rakta also.^[5]

The ingredients of panchatikta kshira majja basti has tikta ras which is having pradhanta of vayu and akasha mahubhuta. The decoction made in Ksheera (milk) which have madhura (sweet) and Snigdha (unctuous) properties helps to control Vata Dosha and due to Sukshma Guna (minute properties) of Saindhava (rock salt) it reaches up to micro channel of the body and helps to open fresh blood supply to the bone tissue. In this Basti, Tikta Dravyas are having Tikta Rasa, Ushana Virya (hot potency), Madhura and Katu Vipaka (pungent post digestive taste) which favours normal functioning of Dhatvagni (metabolic stage) facilitating increased nutrition to the Asthi Dhatu. Ghrita is Vatashamak (pacifier of Vata), Madhura, Shita Virya (cold potency). Thus, it pacifies Vata, improves the Dhatu Upachaya (metabolism of the tissue) and acts as a rejuvenator of the body. Ghrita has the properties of Sanskarasya Anuvartana (that which inherits the properties of other drugs without altering itself) precipitating bioavailability of other drugs. Hence, helps in Samprapti Vighatana (breaking down of pathology) of the Asthi Kshaya.

Tikta Dravya Sadhita Ksheera Basti is specially indicated in Asthikshayaja Vikara (disorders caused by decrease of Asthi Dhatu). Patra Pinda Swedana: Once Samayaka Rukshana Lakshana^[12] observed Patra Pinda Swedanawas planned to obtain the Mridu Snigdhatu in the body. Patras used for the Patra Pinda Swedana is mentioned in the Swedopaga Gana^[5] of Acharya Charaka. The drugs used are having Vatahara property and all the drugs used here have Ushna Virya, Snigdha and Sukshma Guna. So drugs act on the Vata directly. Patra Pinda Swedan relieves pain, stiffness and swelling associated with arthritis and other painful conditions, pacifies the morbidity of Vata, Pitta and Kapha in the affected joints, muscles and soft tissues, causes sweating and brings about lightness and a feeling of health in the affected joints, muscles and soft tissues. Ksheer Bala tail having bala Madhura Rasa, Guru, Snigha Guna, Sheeta Veerya and Madhura Vipaka. It possesses Vata Pitta Hara property and is Balya in nature. Also by having Anti inflammatory property it calms nerves and helps in muscle strengthening. Shashtikashali Pinda Swedana It is a kind of Brimhana, Vatahara, Balya Sweda. By virtue of its ingredients like Godugdha and Shashtikashali, it nourishes and gives strength to muscle tissues and Balamoola it nourishes nervous tissues. Consequent

application of therapeutic heat causes vasodilation, because of this the blood circulation improve and remove the waste products. Anabolism increases as tissue receives the oxygen and nutrition occur properly. Heating can decrease stiffness and increased tissue extensibility, thus facilitating ease of motion and gain in range of movements. Shashtikashali Pinda Sweda improves the strength of tissues which in turns increase movements and flexibility.^[6]

CONCLUSION

Avascular necrosis of head of femur was treated and further deterioration was also checked by using the panchakarma procedures. AVN in present era is becoming a health status burden due to the non except surgery in modern medicine. The case study shows successful management of stage3 AVN of bilateral head of femur, the treatment should be aiming at the cause of this disease thus slowing down or even stopping the evolution of AVN and thus delaying the process as much as possible. It is advisable to conduct such studies on a larger number of sample to draw more concrete conclusions.

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