

CASE STUDY

Ayurvedic Management of AVN (Avascular Necrosis of Femur Head): A Case Study

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ABSTRACT

Avascular necrosis is the death of bone tissue because of scarcity of blood supply. Also mentioned as osteonecrosis. It can cause minute fractures and may collapse of the bone. It is caused due to an injury or enduring use of steroid drugs in large dose and excessive alcohol intake. AVN femoral head is the most usual type of necrosis because the artery supplying this area is very slender that gets injured easily followed by simple dislocation or fracture which leads to lack of blood supply leading to necrosis. According to modern science, there is no specific therapy instead of surgery. According to the principle of *ayurveda Vata, Pita, Rakta Dosha* play major role in prognosis of AVN along with involvement of *Asthi* and *Majja Kshaya*. One case of bilateral femoral head AVN has been treated with *Deepan Pachan*, followed by *Panchtiktaghrita* and *Vatshamak Dravya, Panchtiktsksheerbasti*. symptomatic improvements were seen in the patient according to signs and symptoms before and after treatment.

Observation: The outcomes were inspiring. Therapy has resulted in a marked enhancement in the gait, pain and tenderness.

Key Words Avascular Necrosis, *Asthi-Majjagata Vata, Panchtiktakheerabasti, Deepan Pachan*

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INTRODUCTION

AVN is a progressive disorder. It is the osteonecrosis (death of bone tissue) due to deficiency of blood supply¹. In young adult 60% of the cases being bilateral. It is caused due to the injury, long term utilization of large dose steroids & excessive alcohol intake. It is classified mainly into two types 1) Post traumatic 2) Idiopathic. The arteries supplying this area is very slender that gets injured easily followed by simple dislocation or sub capital fracture this causes a lack of nourishment leading to necrosis. It may be asymptomatic in the beginning but later mild

to severe degree of pain is seen along with change in the gait². AVN of the femoral head has been pain in groin that radiates towards the anteromedial thigh. There is no straight correlation pf AVN and *Asthi Majja Gatavata* but on their clinical presentations is it *Vata Prardhana Tridoshaja Vyadhi* with *Vikruti* of *Asthi Majjadhatu*³. Treatment aspect of AVN in contemporary science revives around the pain-relieving medicine to total hip joint replacement surgery, which have drawbacks of long-term recovery and short life span of hip joint. On contrary *Ayurvedic* treatment provides long term

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recovery and stops the progression of disease without drawback.

Materials and methods

CASE REPORT:

A 34-year-old male patient went into OPD with chief complaints of pain in bilateral hip joint (right more than left) for 2 years. Patient also has difficulty in walking more than 100 meters and he could not sit with his legs crossed. The pain was continuous in nature and radiating to bilateral thighs has gradual onset of pain in right hip joint after walking, with recurrence and severe pain and inability to walk his condition became progressively worse and he was advised for surgical intervention. Which the patient refused to due to expense and move toward Ayurvedic treatment for the AVN.

Past history:

The patient was seemingly healthy before 2 years. Then he suffered through some eye injury (retina dislocation) in 2018, which was managed by surgery to repair it, after surgery he has taken steroid for 6 months. Which is being a probable cause for AVN.

Examination of patient:

The general and specific examination of patient was conducted as per modern and ayurveda and the details are highlighted.

Physical examination:

O/E Range of motion of right hip was severely limited and pain full in all ranges. Left hip joint was moderate pain full in all ranges. Mostly pain

is being felt in abduction and extension. There was no muscle atrophy. Range of motion of both knee joints was full and painless.

Investigation:

MRI OF BOTH HIP JOINT AND S.I. JOINTS
(21/10/2020)

Avascular necrosis osteonecrosis in the head of both femurs in antero-superior quadrant of head of both femurs with bone marrow oedema in head and neck of femur with bilateral hip joint effusion. (According to mitchel's classification class C to D)

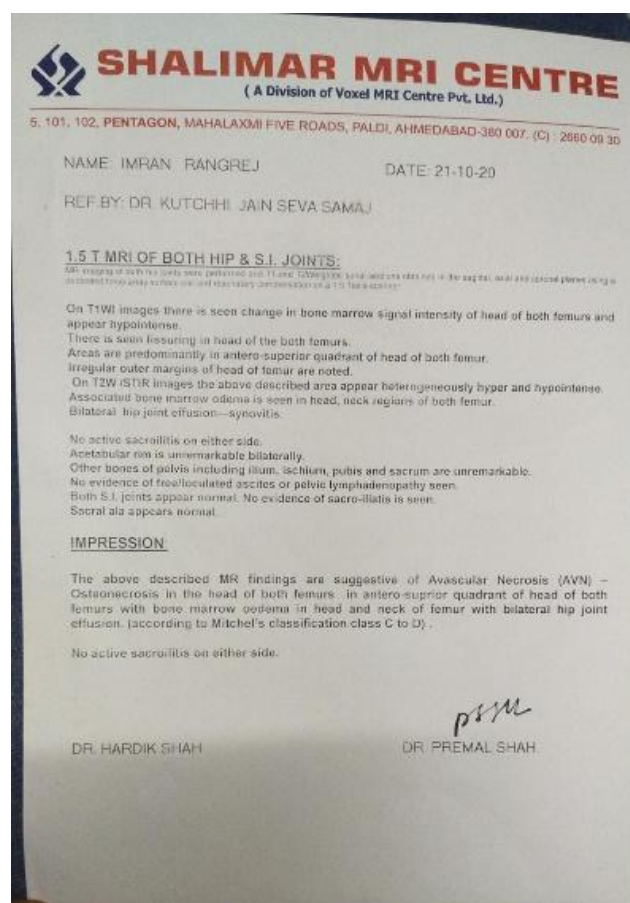


Figure 1

Assessment criteria:

Range of migration of hip joint i.e., Abduction, Adduction, Extension, flexion, Internal rotation, External rotation was measured by goniometer.

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Aturbala praman pariksha

1. Prakriti: Vatapradhana Pitta
2. Sara: Madhyam Mansa, Asthi
3. Samhanana: Madhtam
4. Pramana: wt:68kg
5. Satva: Madhyama
6. Satmya: Madhyama
7. Aharashakti: Abhyavarana -average, Jaran
– 5-6 hrs
8. Vyayamshakti: Avara-poor
9. Vaya: Yuvavastha
10. Desha: Sadharana

1. Nadi: 76/min, regular
2. Mutra: Samyaka
3. Mala: Savibandha
4. Jihva: Samyaka
5. Shabda: Samyaka
6. Sparsha: Samyaka
7. Drik: Spastha
8. Akriti: Madhyama

Treatment Administered

Oral Ayurveda medicines were administered in the patient. The details are mentioned below in table 1.

Astavidh Pariksha

Table 1 Details of oral medications administered

Sr.no.	Drug	Dose	Anupana	Time	Duration
1	Sinhanad Gugullu	2 tab	With luke warm water	Before food TDS	60 days
2	Dashmoola Kwatha +Pathyadi Kwath	20 ml	Luke warm	Before food BD	60 days
3	Ashwagandha Churna +Kalmegha Churna +Giloy Churna + Godanti Bhashma	6gm	With milk (ksheerpaka)	Before food BD	60 days
4	Hingwastak Churna	6gm	With ghrita	Before food BD	60 days
5	Panchtikta Ghrita	2tbs	With luke warm water	Early morning OD	60 days

Table 2 Details of therapies Administered:

Sr. no	Procedure	Ingredient	Dose	Duration
1	Panchtiktaksheera Basti			30days
	• Anuvasan Basti	Panchtikta Ghrita	60ml	
	• Ksheera Basti	Madhu	30gm	
		Saindhava	5gm	
		Gugullu Tikta Ghrita	50ml	
		Guduchi,Neem,Patol,Vasa,Kantkari Kalka	30gm	
		Ksheera	240ml	

Out come and follow up:

On observation and examination before treatment, after completion of Basti procedure

and after follow up of 1 month the results were as given in table 3.

Table 3 Observation in range of movement of hip joint

Range of movements		Before treat.	After treat.
Abduction (30-40)	Rt. Leg	10	25
	Lt. Leg	20	30
Adduction (20-30)	Rt. Leg	10	20
	Lt. Leg	20	30
Flexion	Rt. Leg	66	105

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(110-120)	Lt. Leg	110	115
Extension	Rt. Leg	5	10
(10-15)	Lt. Leg	10	15
Internal Rotation	Rt. Leg	15	20
(30-40)	Lt. Leg	30	35
External Rotation	Rt. Leg	25	35
(40-60)	Lt. Leg	40	45

DISCUSSION

According to ayurvedic point of view there is no direct co-relation with avascular necrosis but on their clinical presentation there is dominance of *Vata* dosha and *Vikruti* of *Asthi Dhatu*. In AVN the blood flow to the femoral head is diminished caused by any type of *Margavrodha* or *Abhigata* and finally trigger necrosis. According to *Vagbhatta Asthi* and *Vayu* are have *Ashrya-Ashrayi Bhava*, *Vayu* located in *Asthi-dhatu*. The principle of *Ashrya-Ashrayi* is not applicable in treatment of *Asthidhatukshya* because *vata* vitiation is leads to *Asthi-kshya* that's why we need a treatment that reduces *vayu* and increases *Asthidhatu* which is mention by Acharya Charaka in sutrasthan Adhyay 28/27, disease of *asthidhatu* can be treated with the *panchkarma*, specially *panchtikta-ksheera-basti*⁴. Hence it can be said that *Tikta-ksheer-Basti* has capability to restoration of bone degeneration. since *Asthi* was the main involved *Dhatu*; *Tikta Dravya Sidhdha basti* was selected as given in table no.-2⁵. In this study we found new way of treatment which help various different types of avascular necrosis occur in the body. It means something change in vascularization of that part. In other hand we can say that *Panch Tikta Ksheera Basti* can improves vascularization in the body.

CONCLUSION

Necrosis is a disorder wherein cellular death occurs thus the aim was to check the progression of the disease to bring about symptomatic relief in the subject. *Tikta Ksheera Basti* brought a marked alleviation of ache, tenderness and enhancement in the gait. *Tikta Ksheera Basti* is able to give meaningful outcomes in *Asthimajjagata Vata*. Hence it can be effectively used in management of *Asthimajjagatavata*. This case of AVN to appraise the efficacy of *Panchkarma* in the management of AVN.

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