



MANAGEMENT OF AVASCULAR NECROSIS (AVN) THROUGH PANCHAKARMA – A CASE STUDY

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ABSTRACT:

Avascular necrosis, also known as aseptic or ischemic necrosis. It is the condition in which there is loss of function of bone tissue. The affected bones become fragile and may fracture easily. It usually occurs when blood flow to part of bone blocks. Without blood flow, the bone tissue dies from a lack of nutrition and oxygen. AVN of the femoral head is most common type of necrosis affecting the bones. Management of AVN aims at the preservation of structure, function and relief from pain. Many surgical procedures such as drilling and insertion of bone grafts, insertion of prosthesis and modified Whitman or Colonna reconstruction are carried out to cure the condition but all these procedures are costly with the prognosis being poor. Signs and symptoms of AVN are nearer to *asthivaha srotodusti vikara* (musculoskeletal origin disorders) and can be considered with *gambhira avastha* (chronic stage). In this paper an effort has been made to evaluate efficiency of *Panchakarma* procedure in the conservative management of AVN of femoral head. This paper includes case study of male patient with AVN of right femoral head, is treated with *rukshana* (Drying therapy) followed by *shodhana* (biopurification) and *brhmana* (rejuvenation). Patient was observed for symptomatic improvements. The results were encouraging. The therapy provided marked relief from pain, tenderness, stiffness and improvement in gait. Conservative management of AVN through Ayurvedic principles provides significant relief and improves quality of life.

Keywords: *Panchakarma, rukshana, shodhana, brhmana*, Avascular necrosis.

INTRODUCTION:

AVN is a disease with many etiological factors, affects mainly younger population and if not managed timely, leads to collapse of bone. Avascular necrosis is death of bone tissue due to lack of blood supply¹. Also called osteonecrosis², it can lead to tiny breaks in bone which cause the bone to collapse. Anyone can be affected with AVN, but it is more common in people between ages of 30 to 50. It tends to occur more in man than women. In India, about 16,000 new cases of AVN occur every year. The most common joint affected is hip joint; head of the femur is one of the classical sites of AVN. Other commonly affected bones include those of the arm, the shoulder, the knee and the ankle. Avascular necrosis is a progressive disorder with surgical intervention as the prime choice. If left untreated, the disease progresses there occur collapsing of necrotic bony segment. Some studies suggest that corticosteroid related avascular necrosis is more severe and more likely to affect both hip than avascular necrosis resulting from other causes. Similarly, in people who drinks excessive amount of alcohol, fatty substance may block blood vessels, causing a decreased blood supply to bones that results AVN.

This condition is to be considered as *asthi dhatu kshya* or *vikruti*³. Due to same conditions, especially *Amavata* and *vāta rakta* conditions. Avascular necrosis is the outcome of *rakta dushti*. When *ama* increased in *raktadhatu* that causes *srotovarodha* resulting in impaired circulation, that impairment of *rakta dhatu* takes *sthanasamsraya* at the site of *khavigunya* in any tissue. In all the above mentioned disorders, *asthidhatu* gets *khavaigunya* due to their respective pathogenesis in which condition; the impaired *samarakta* takes *sthanasamiraya* and establishes the condition of Avascular necrosis. Usually it affects *dosha*, and sites of *sleshaka śleshma* where *khavaigunya* is already established. *Amavata* and *sandhi vata* are the predominant causes of this disease.

CASE REPORT (CASE PRESENTATION):

Patient details: A 38 years old male patient, working as mechanical engineer reported to OPD of Panchakarma, NK Jabshetty Ayurvedic Medical College and Research Center, Bidar, Karnataka, India with complaint of difficulty & pain during walking, restricted movements of right hip joint, pain at right hip joint since 5 to 6 months. Aggravating factors were cold weather, gastric upset and supine posture etc.

History: There was neither any history of trauma nor other medical or surgical illness as well as no any history of specific medications such as steroids etc. Patient has taken allopathic treatment but there was only symptomatic relief. Surgery was advised by his physician but he is not willing for surgery. Therefore came to take Ayurvedic treatment.

On examination: There was not any external abnormality, sign of any wasting of muscles, swelling or any kind of injury. Only limping of leg was found due to which there is no free internal rotation of right hip joint.

Gait- Trendelenberg sign was positive. Tenderness over right thigh, patient unable to lift limb up to 40 degrees.

Movements: Pain on movement of hip joint such as Flexion, Extension, Lateral flexion and Rotation.

Diagnosis: During a physical exam, press around hip joints, tenderness was present. After moving the joints through different positions the range of motion was seen lessened. From above signs and symptoms the patient is diagnosed with AVN.

Treatment planed:

Table No1:- Treatment planed for 3 weeks.

PANCHAKARMA TREATMENT	PROCEDURE	DRUG USED	NO. OF DAYS
RUKSHANA	Ruksha massage of whole body with churna (Powder massage)	Kolakulathadi churna	5 days
SHODHANA	1)Sthanik Abhyanga followed by nadi sweda	Ksheerabala taila And Balamoola kwatha sweda.	8 days
	2)Yoga Basti (Enema)	Anuwasana: Sahacharadi taila Niruha: Panchatikta ksheera basti	
BRAMHANA	Shastikashali pinda sweda (Sudation using medicated rice)	Shastika shali Balamoola kwath & milk	8days

Considering the history and examination of patient, treatment was planed based on principles of *Sadvidhopakarma* (Six principles of treatment). Presentation of the patient with pain and stiffness of right hip joint shows involvement of *vatakapha dusthi*, associated with *Asthivaha srotas* (Musculoskeletal origin). Hence *Rukshana* with *Kolakulathadi* powder for 5 day.

2nd Sitting of Shodhana (Biopurification) in the form of *Panchatiktakshira basti* and *Sthanika Abhyanga* with *Kaheerabala taila* followed by *Nadi Sweda* of *Dashmoola kwatha*.

3rd sitting of *Shastikashali pinda sweda* for *brmhana* purpose is done. The total duration require for the whole cycle was 21 days. During the course of treatment patient was given low carbohydrate diet. Patient was observed for complications during whole course of treatment and no unwanted complications were observed.

Table No 2:- Gradation of symptoms of Avascular necrosis of head of femur

Sr. No.	Signs & Symptoms	Grade
1	Difficulty in walking	
	No difficulty	0
	Mild	1
	Moderate	2
	Severe	3
	Unable to walk	4
2	Limping of leg	
	Walks normally	0
	Slightly lame while walking	1
	Moderate	2
	Severe	3
	Unable to rise leg and will not walk more than five steps.	4
3	Pain at hip joint	
	No pain	0
	Mild	1
	Moderate	2
	Severe	3

	Very severe	4
4	Restricted movement of right hip joint	
	Excellent: Patients are free of pain, can walk as far As the wish without assistant & have at Least 75% of ROM	0
	Good: Patients have only minimal pain & ambulate independency with 1 or 2 canes. 50% RMO	1
	Fair: Patients have moderate pain on weight bearing & can walk only short distance with assistance. RMO is < 50%	2
	Poor: Patients are confined to a wheelchair with only minimal weight bearing	3
	Failure: Patients have severe pain in rest & not able to bear weight.	4

Table No 3: Effect of treatment before and after

Sr. No.	Signs and Symptoms	Gradation	
		Before	After
1	Difficulty in walking	4	2
2	Limping of leg	3	1
3	Pain at hip joint	3	1
4	Restricted movement of right hip joint	3	2

Observations & Results:

The changes were not seen by any radiological investigations. But the effectiveness of treatment was markedly observed in the signs and symptoms within 3weeks period which is mentioned in above table. During *Rukshana* period patient did not find any kind of changes, but during *shodhana* therapy slight improvement was present. Patient was able to lift leg at 40 degree with mild pain, due to stiffness. After the *brmhana* therapy patient was able to lift leg up to 70 degrees with complete reduction of stiffness and pain. Overall the patient felt symptomatic improvements

Conclusion:

Patient of AVN of right femoral head is treated with Panchakarma therapy. In which the line of treatment was *rukshana* followed by *shodhana* and *brhmana*. As the pre-operative process, acharyas have prescribed “*brhmyamstu mrdu langhayet*”⁴ that means *rukshana* use for better *brhmana*. Hence for that the treatment was planned to remove srotorodh (obstruction) and maintain the imparting compactness to body. *Basti* is one among the *panchakarmas* which is *ardhachikitsa* for *vata vyadhi* and it clearly shows its efficacy in chronic condition due to its therapeutic effect of *shodhana*⁵. Therefore in AVN like conditions this can prove to be a better modality of treatment, as AVN represents *gambhir asthidhatugata vata*. The results were encouraging. The therapy is cost effective. Conservation management of AVN through Ayurvedic principles provides significant relief and improves quality of life.

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