



MANAGEMENT OF AVASCULAR NECROSIS THROUGH AYURVEDA- ACASE STUDY

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ABSTRACT:

Avascular necrosis (AVN) it is basically an osteonecrosis caused due to an injury or any occlusion in the blood vessels nourishing the bone tissue. AVN of femur head is the most common type of necrosis because the artery supplying to that area is very narrow which easily gets injured followed by mere dislocation or a sub capital fracture which leads to lack of nourishment resulting in necrosis. *Asthimajja gata vata* is a *gambheera dhatu gat vatavaydhi* explained in classics. *dhatukshya ,atipravarti* and *sthansamshraya* of *dosha* leads to *dosha,dushya sammurchana* in *asthimajja*.give rise to a *sthanik kapha kshaya* and *vata vridhhi.vatvridhhi* leads to *asthimajja kshaya*.In modern medicine no any specific treatment rather than surgery is available. All treatment costly and poor result. The present case was aimed to evaluate the efficacy of Ayurveda system in the management of avascular necrosis. In the present case 41-year-old male is diagnosed with bilateral avascular necrosis, was treated with *sastiksaali pinda sweda* along with *tikta ksheer basti* and *saman chikitsa*. Patient was observed for remarkable improvements based on signs and symptoms before and after treatment. The therapy provided marked improvements in the gait, pain, tenderness and range of movements. Conservative management of AVN through *Ayurvedic* principles provided significant relief in sign and symptoms and good quality of life.

Key words: - Avascular necrosis, *Asthimajjagat vat*, *tiktaksheer basti*, *sastik saali Pindaswedana*

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INTRODUCTION

Avascular Necrosis (AVN) is also called as bone infarction. Here, the bone "dies" due to loss of blood circulation to a portion of bone tissue. In Latin "Bone death" is perceived for Osteonecrosis. interruption of blood flow to the bone leads to the death of bone marrow and osteocytes and usually causes the collapse of the necrotic segment ^[1]. Even, collapse of a section of bone, may occur in complex cases. When, surface of the joint gets involved, it may arise to "rapidly progressive arthritis". meningococcal infections are some of the common causes of AVN of bone ^[2]. Avascular necrosis is an outcome of an injury that interferes the supply of blood. Pain can be mild or severe, localized and develops gradually. Pain may be limited to groin, thigh or buttock if AVN affects hip. Pain location tends to be most specific in anterior hip and lower pelvis. Can be acute in onset (acute infarct phenomenon), which can mimic an acute injury. Range of motion will be reduced affecting the gait. No satisfactory therapy is available in conventional system of medicine. Prognosis of all such approaches are not convincing.

But principles of *Ayurveda Chikitsa* must be applied clinically to diseases which are not described in Ayurveda texts which are termed as *Anukta Vyadhi* (unmentioned disease). An effort was made to evaluate the efficiency of *Panchakarma* (five therapeutic procedures) treatment along with the conservative management of AVN of femoral

head against painful surgical procedure prescribed by modern science.

MATERIALS AND METHODS

Study design: Single clinical study

Informed written consent taken from patient in his language before treatment.

For the present study, 41-year-old male patient, having signs and symptoms of *Asthimajjgatvat* (AVN) since 3 months is been discussed in detail manner.

Assessment Criteria: Based on "signs and symptoms" patient had, before and after treatment

Patient was treated with "*Panchakarma*" therapy along with "Oral medications".

Case Report: An Pt.41-year-old, male patient, from Bhopal came to OPD with following complaints

- B/L Hip joint pain
- B/L Lower Limb Oedema
- Difficulty in walking,
- Difficulty in doing normal activities.
- Painful internal rotation of lower limbs(L>R)

Patient was apparently fine 3 months back and gradually started suffering from above complaints. He consulted Orthopedics Surgeons for the same and was diagnosed Avascular Necrosis of B/L Femoral Heads (Stage II) with the aid of MRI. He was advised Analgesics, Calcium supplements along with surgical intervention, but the patient was not willing for surgery, approached us for *Ayurvedic* management.

Investigation-

MRI both hip joints-(Done on 20/10/22)
MRI of bilateral hip joint show grade –II AVN changes in left femoral head associated with marked surrounding marrow edema and mild joint effusion as described above. Early grade-II

AVN changes in right femoral head are also noted.

Examination of patient: -The general and specific examination of patient was conducted and details are highlighted in table 1,2 and 3

Table no. 1: Aturbala Pramana Parikha (examination of the strength of the patient)

<i>Prakruti</i> (constitution of the person)	<i>Vatapradhan pitta,Rajas</i>
<i>Sara</i> (quality of tissue)	<i>Madhyam Ras,Rakta,Mansa</i>
<i>Samhanana</i> (body built up)	<i>Madhayam</i>
<i>Pramana</i> (antrometric measurement)	Weight 65kg ,height 5 feet
<i>Satmya</i> (adaptability)	<i>Madhayam</i>
<i>Satav</i> (mental strength)	<i>uttama</i>
<i>Aharsakti</i> (food intake and digestion capacity)	<i>Abhyavaharan (average) Jaran 5-6hrs</i>
<i>Vyayama sakti</i> (exercise capacity)	<i>Avara</i> (poor)
<i>Vaya</i> (age)	<i>Yuvavastha</i> (adult)
<i>Desha</i> (habitat)	<i>Sadharan</i>

Asthavidha Pariksha (Eight-fold examination)

Nadi (pulse)-80/Minute,Regular

Mutra (urine)-*Samyaka*

Mala (stool)-*Saymaka*

Jivha (tongue)-*Nirama*

Shabda (sound)-*Spashta*

Sparsha (touch)-*Samsheetoshna*

Drik (eye)-*Spashta*

Table no.2: Range of movement

Range of movement	Before treatment (In degree) Left hip	Before treatment (In degree) Right hip
Flexion	60	90
Extension	20	30
Abduction	20(Pain full)	20
Adduction	10	30
Internal rotation	10(Pain full)	30

External rotation	20	25
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Treatment administered-

Both *saman* and *sodhan* therapies was administered in patients the detailed aremention below-

- 1.T. *Parijat gan vati* 1-0-1 (Luke warm water)
- 2.T. *Vishtinduk vati* 2-0-2 (Luke warm water)
3. Cap.*ksheerbala* 2-0-2 (Luke warm water)
4. Cap.*Dahanvantram* 1-0-1 (Luke warm water)

Table-3 The composition of *Tikta Ksheer Basti* adopted for the study is as following.

Ingredients	Drip Method
<i>Ksheer</i>	80ml
<i>Madhu</i>	20ml

<i>Laxadi Tailam</i>	20ml
<i>Kalka</i>	5gm
<i>Sandhav</i>	2.5gm

Ingredients of *Kalka*: - *Guduchi, Tikta patol, Chirayata, and Yastimadhu* in equal parts. Preparation of *Basti Dravya*: - *Tikta Ksheer* was prepared by adding *Ksheer* and water in equal parts. *Kalka Dravya* was added to this and it is allowed to boil till the water evaporates. The *Basti Dravya* mixing was as per classical method.

Table-4 Results of first 16 *Basties* given by drip method

No. of <i>Basties</i>	Approx <i>Basti</i> in ml	Total time taken in min.	<i>Basti dharan</i> kala in min.	Other symptoms
1	120ml	20	10	Stool Frequency twice
2	120ml	22	12	Stool Frequency twice
3	120ml	20	10	Stool Frequency twice
4	120ml	20	10	Stool Frequency twice
5	120ml	20	15	Stool Frequency twice
6	120ml	22	15	Bowel frequency once, lightness present
7	120ml	20	12	Bowel frequency once, lightness present
8	120ml	23	12	Bowel frequency once, lightness present
9	120ml	20	12	Bowel frequency once, lightness present, <i>Vatanuloman</i>

10	120ml	20	12	Bowel frequency once, lightness present, Test in food
11	120ml	22	10	Bowel frequency once, lightness present, Test in food, improved digestion
12	120ml	23	15	Bowel frequency once, lightness present, Test in food ,improved digestion
13	120ml	20	15	Bowel frequency once, lightness present, Test in food, improved digestion
14	120ml	22	10	Bowel frequency once, lightness present, Test in food, improved digestion
15	120ml	22	10	Bowel frequency once, lightness present, Test in food, improved digestion
16	120ml	20	12	Bowel frequency once, lightness present, Test in food, improved digestion

Observations

(table 5) There was significant clinical improved.

Post treatment changes were noted in respect to range of hip joint movements

Table no.5: Post treatment changes in hip joints

Rang of movement	After treatment (In degree)	
	Left hip	Rt.hip
Flexion	90	100
Extension	30	60
Abduction	30	50
Adduction	50	50
Internal rotation	40	60
External rotation	50	50

DISCUSSION

According to *Ayurveda* point of view there is no direct co-relation with Avascular necrosis but clinical presentation indicates 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 Dosh* (due to necrosis) imbalance it is further responsible for causing vitiation of *Pitta* and *Kapha*. So *Basti* is first line of treatment of *Vata Dosh* as well as *Pitta*, *Kapha Dosh* and *Rakta* also [3]. *Tikta Dravya Sadhita Ksheera Basti* is specially indicated in *Asthi Kshaya* (disorders caused by decrease of *Asthi Dhatu*).[4]

Probable mode of action of *Tikta Ksheera Basti*:

The decoction made in *Ksheera* (milk) which have *Madhura* (sweet) and *Snigdha* (unctuous) properties helps to control *Vata Dosh* and due to *Sukshma Guna* (minute properties) of *Saindhva* (rock salt) it reaches up to micro channel of the body [5] 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 favors normal functioning of *Dhatvagni* (metabolic stage) facilitating increased nutrition to the *Asthi Dhatu*. *Ghritha* 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. *Ghritha* has the

properties of *Sanskarasya Anuvartana*[6] (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*.

CONCLUSION

On the basis of this case study, it was concluded that *tikta Kshira Basti* along with certain palliative medicine is effective in management of avascular necrosis of neck of femur. While there is enormous scope for further research but still it proves that with proper diagnosis and proper treatment protocol Ayurveda can be extremely beneficial in the management of AVN. The recovery in the present case was promising.

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