

MANAGEMENT OF AVASCULAR NECROSIS THROUGH PANCHTIKT KSHEER BASTI: A CASE STUDY

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ABSTRACT-

Avascular necrosis (AVN), also called osteonecrosis, is cellular death of bone components due to interruption of the blood supply. Clinically AVN most commonly affects the ends (epiphysis) of long bones such as the femur. Major Symptoms include pain and restricted movements. In early stages there are no symptoms but in advance stage patient suffer from severe pain and dysfunction of affected joint.

Aim and Objective:-To evaluate the efficacy of *Panchatikta Ksheer Basti* in the management of Avascular Necrosis.

Material and Method:- A male patient aged 31 years, consulted at the OPD of department of Panchakarma, IPGT & RA, Jamnagar with chief complaints pain at bilateral hip joint since 1.5year, difficulty in walking and standing from sitting position, difficulty in forward bending since same duration, restricted movements at bilateral hip joint, history of jerk at hip joint one year back while lifting heavy weight. As per Ayurveda the patient is diagnosed as a case of *Asthimajjagata Vikara* in which there is dominance of *Vata Dosha*. Patients having a higher level of damage of bone tissue or presenting in higher grades of AVN have a poor prognosis.

Result:- Patient was treated with *Panchakarma* treatment particularly with *Panchtikta Ksheer Basti* for a duration of 16 days and at the end of treatment there was much relief in the symptoms of the patient.

Conclusion:- So *Panchtikta Ksheer Basti* was found to be very effective for the treatment of degenerative disease like Avascular necrosis.

Key word:- Avascular Necrosis, *Asthimajja gata vata*, *Panchatikta Ksheer basti*.

INTRODUCTION-

Avascular necrosis (AVN) is a disease in which there is temporary or permanent loss of blood supply to bone. In early stages there are no symptoms but in advance stage patient suffer from severe pain and dysfunction of affected joint^[i]. The bone tissue dies without blood, and ultimately the bone may collapse. The process is almost always progressive without treatment, which leads to the joint destruction within five years^[iii]. AVN is very serious problem in which more than 10% of total hip replacement surgeries performed. A diagnosed case of male patient with complaint of severe pain in left hip joint along with upper aspect of right thigh with mild pain in right side and difficulty in prolonged standing, sitting and lifting of objects also, there is also restricted movement of hip joint and sleep was disturbed due to pain. This particular case was correlated with *Asthi-Majjagata vata*^[iii,iv] and treated accordingly. So the treatment plan of this disease is according to *Dosha* and

Dushya^[v]. Here in AVN, it seems that the predominancy of *Vata Dosha* and *Asthi and majja as Dushya*. In this study treatment was done on the basis of Ayurvedic diagnosis by mean of dashwidh pariksha. On the basis of this final diagnosis was made i.e. *Asthi-majja gata vata*. *Basti chikitsa* is found to be the half the treatment for *Vata* dominated diseases as described in the *Samhitas*. *Basti* is declared as *Param Aushadh* for *Vata*. *Vata Dosha* is predominantly present in *Asthi* and *Sandhi* (joints). After assimilation in the body, *Tikta Rasa* has tendency to move towards *Asthidhatu* due to dominance of *Akasha* and *Vayu Mahabhuta*. In the present context *Ksheera* is used as *Basti dravya* and is used along with kwath and is effective in *Asthigata Rogas*. Due to the *Snigdha* and *Madhura* properties *Ksheera* and *Ghrut* it does *Vata Shamana* in the body. Considering all these factors it was decided to evaluate the efficacy of *Tikta-ksheera Basti* in *Asthimajjagata Vata*. Patient was first provided by *Deepana* and *Pachana* followed by *Tikta Ksheera basti* (medicated enema prepared with milk and ghee) was administered for 16 days. There was relief of pain, moderate improvement was found in all signs and symptoms, pain and stiffness was reduced.

CASE REPORT:

A male patient, aged 31 years with the complaints of pain and stiffness in both hip joints, and thigh region with difficulty in walking since 1.5 years was admitted in Panchakarma IPD. Pain at bilateral hip joint since 1.5 year, there was restricted movements at bilateral hip joint, difficulty in walking and standing from sitting position. Difficulty in forward bending since same duration. No significant family history was present. The patient had H/O injury (patient fall down on floor) and also history of jerk at hip joint four months back while lifting heavy weight. Surgical intervention was advised to the patient, which the patient refused and approached *Ayurveda* treatment.

Table 1: General Examination:

BP	120/88 mm of Hg
Pallor	Absent
Cyanosis	Absent
Temperature	Afebrile
Respiratory rate	20/min, Regular
Pulse	78 beats/min
Lymph nodes enlargement	Not palpable

Chief Complain:

1. Painful movement in the hip joint since 1.5 year
2. There was difficulty in walking and patient felt uneasiness after walking for few step since 1.5 year
3. Difficulty in forward bending since same duration.

Associated complain: There was no any associated complain.

Family history: Absent

Drug history: Absent

Past history: History of injury (patient fall down on floor) and jerk at hip joint four months back.

Table: 2 Investigations:

CBC	Within normal limit
MRI report (Dated- 12/02/2017)	Bilateral avascular necrosis

Table: 3 Examination of the Rogi (patient) according to Ayurveda-

<i>Parikshya Bhava (Examination of Patient)</i>	Observations
<i>Prakriti</i>	<i>Vata-Pitta</i>
<i>Vaya</i>	<i>Madhyama</i>
<i>Bala</i>	<i>Madhyama</i>
<i>Agni</i>	<i>Mandagni</i>
<i>Abhyavarana Shakti</i>	<i>Madhayama</i>
<i>Jarana Shakti</i>	<i>Avara</i>
<i>Koshtha</i>	<i>Madhyam</i>

Material and Method:

Treatment Plan:

First of all *Deepana* and *Pachana* treatment was adapted, for this *Trikatu churna* 3 gm twice a day with Luke warm water and *Shunthi churna sidhha jala* for whole day was administered for 5 days.

Sarvang Abhyang with *Bala Taila* and *Vashp Svedana* was done followed by *Panchtikta ksheer Basti*. The whole process was continued for 16 days and no other medication was given during the *basti*. In *Niruha Basti*, *Panchtikta Ksheer* was used as *Kwath*, and *Yasthimadhu Taila* ^[vi] was used in *Annuvasana Basti*. After completion of 16 days *basti*, *Shamana chikitsa* was given which includes *Kaishor Guggulu* ^[vii] -2 pills (500 mg) with *Rasna Saptak Kwatha* – 50 ml BD before meal and combination of *Ashwagandha Churna* – 3 g + *Chopachini* – 500 mg + *Shtavari Churna*– 2 g BID with milk after meal and *Triphala Churna* – 5gms at night.

Table: 4 Contents of *panchatikta kshira Basti*-

CONTENT	AMOUNT
<i>Madhu</i>	60gm
<i>Saindhava lavana</i>	5gm
<i>Guggulu tiktata ghrta</i>	90ml
<i>Panchatiktaka Kwath</i>	240ml
<i>Putoyavanyadi Kalka</i>	30gm
<i>Kshira</i>	240ml

Table: 5 Plan of Basti

Day	Dose in ml	Time of administration (A.M.)	Time of Vasti Pratyagamana	Observations	Complications if any
1	80	10:30	3 hr	No any change	Not any
2	600	11	15 min	Lightness in body, bowel one time, no relief in pain and stiffness	Not any
3	600	10:45	12 min	Lightness in body, bowel two time, mild relief in pain and stiffness	Mild pain in abdomen
4	600	11:30	05 min	Lightness in body, bowel one time, mild relief in pain and stiffness	Not any
5	80	11	5 hr	Lightness in body, bowel one time, mild relief in pain and stiffness	Not any
6	600	10:45	08 min	bowel one time, mild relief in pain, stiffness and range of movement	Not any
7	600	10	10 min	bowel one time, mild relief in pain, stiffness and range of movement	Not any
8	600	10:20	15 min	bowel two time, much improvement in pain, stiffness and range of movement	Headache
9	80	11:05	--	No bowel after basti, much improvement in pain, stiffness and range of movement	Not any
10	600	10:45	08 min	bowel three time, moderate improvement in pain, stiffness and range of movement	Not any
11	600	10:30	10 min	bowel three time, moderate improvement in pain, stiffness and range of movement	Not any
12	600	10:50	15 min	bowel one time, moderate improvement in pain, stiffness and range of movement	Not any
13	80	11:10	2 hr	bowel one time, moderate improvement in pain, stiffness and range of movement	Not any
14	600	10:55	15	bowel two time, significant improvement in pain, stiffness and range of movement	Not any
15	600	10:35	15	bowel one time, significant improvement in pain, stiffness and range of movement	Not any
16	80	10:50	6 hr	bowel one time, significant improvement in pain, stiffness and range of movement	Not any

Table: 6 grading of Visual Analogous Scale and other symptoms

Visual Analogous Scale	
No Pain (0)	0
Mild (1-3)	1
Moderate (4-6)	2
Severe (7-10)	3

PAIN	
No Pain	0
Mild pain with no difficulty in walking	1
Moderate pain with slight difficulty in walking	2
Severe pain with severe difficulty in walking	3

STIFFNESS	
No Stiffness	0
Stiffness of mild grade, need no intervention	1
Stiffness relieved by topical medicaments	2
Stiffness relieved by oral medication	3
Stiffness not responded by medicine	4

Difficulty in walking	
No pain, normal movements	0
Mild pain with mild restriction of movements	1
Moderate pain with restriction of movement	2
Severe pain with restricting movements	3
Complete restriction of movements	4

Table: 7 Effect of therapy

S.N.	Criteria	B.T. in left	A.T. in left	B.T. in right	A.T. in right
a)	Pain with walking	4	2	2	1
b)	Stiffness	3	1	2	1
c)	pain	4	2	3	2
d)	Gait	2	1	1	1
e)	Movements of joints	2	1	2	1

Table: 8 Improvement in different parameters

Parameters	Before Basti	After Basti	After follow up
VAS	3 in right 3 in left	2 in right 2 in left	1 in right 1 in left
SLR test	42° in right 40° in left	55° in right 45° in left	70° in right 60° in left
Flexion	45° in right 30° in left	55° in right 40° in left	65° in right 55° in left
extension	20° in right 15° in left	24° in right 18° in left	28° in right 22° in left
Adduction	10° in right 10° in left	15° in right 15° in left	18° in right 15° in left
Abduction	20° in right 15° in left	25° in right 20° in left	25° in right 20° in left

OBSERVATION AND RESULTS:

After completion of treatment there was much relief in sign and symptoms of the patient, marked improvement found in the pain and stiffness in hip joint and thigh region. Patient felt marked improvement in walking and the gait of patient improved. An average retention time for vasti was about 12 min. There was significant improvement in pain, stiffness, range of movement of hip joint, adduction and abduction. Patient was able to walk and climb stairs without any external support. VAS scale changes from 3 to 1 in both right and left, SLR changes from 42° to 70° in right side of leg and 40° to 60° in left side of leg, improvement in flexion from 45 degree to 65 degree in right and from 30° to 55° in left, in extension there was improvement from 20° to 28° in right and 15° to 22° in left, in adduction there was improvement from 10° to 18° in right and 10° to 15° in left and in abduction there was improvement from 20° to 25° in right and 15° to 20° in left.

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* (vitiation) of *Asthi Dhatu*. In AVN the blood supply to the femoral head is decreased due to any type of *Margavrodha* or *Abhighata* and ultimately leads to necrosis. According to Commentator *Arundatta*, the substance having *Snigdha* (unctuous) and *Shoshana* (drying) properties and produces *Kharatwa* (roughness) increases *Asthi* (*Asthivardhan*), as *Asthi* is also *Khara* by nature. But no substance is available that has both *Snigdha* and *Shoshana* properties. So *Ksheer* (milk) and *ghrut* (ghee) which are *Snigdha* in nature are advised to be used with the substances which are *Tikta* (Bitter) and possess *Shoshana* (drying) property. It was advised that *Ksheera*, *Ghrut* and *Tikta dravyas* should be used together in the form of *Ksheera Basti*. Hence it can be said that *Tikta Ksheer basti* has ability to repair degeneration of bones and cartilage. Since *Asthi* was the main involved *Dhatu*; *Tikta dravya siddha vasti* was selected^{viii} So, *Ksheera*, *Ghrut* and *Tikta dravyas* will act on the site of lesion in *Asthimajjagata vata*. In this study we found new way of treatment which help various different types of avascular necrosis occurs in the body. If some response is there in the case of necrosed part of bone it mean something change in vascularization of that part. In other hand we can say that *Panchatikta Ksheer Basti* can improves vascularization in the body. We can also say that *Panchatikta Ksheer Basti* may give nourishment to bones, so we can also use *Panchatikta Ksheer Basti* in malnutrition related disease of bones.

CONCLUSION-

Necrosis is a condition 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* provided marked relief from pain, tenderness, general debility and improvement in the gait. *Tikta ksheera Basti* can provide significant results in *Asthimajjagata vata*. Thus it can be effectively used in management of *Asthimajjagatavata*. This was a case study to evaluate the efficacy of Panchakarma in the management of AVN.

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