



The Effect of *Majjabasti* on *Asthipradoshaj Vyadhi* With Special Reference To Avascular Necrosis- A Case Study

KEYWORDS

Avascular necrosis, *Rukshana*, *Majjabasti*

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ABSTRACT Avascular Necrosis also called Osteonecrosis or bone infarction or aseptic necrosis or ischemic bone necrosis is a cellular death of bone components due to interruption of the blood supply without blood, the bone tissue dies and bone collapses. If Avascular necrosis involves the bone of a joint, it often leads to destruction of the joint articular surfaces. While it can affect any bone, about half of cases show multiple sites of damage, AVN primarily affects the joint at shoulder, knee, hip the classical sites are head and neck of femur, neck of talus, waist of scaphoid, clinically AVN most commonly affects the end of long bone such as femur other common sites include humerus, knee, shoulder, ankle and jaw. The disease may affect just one bone more than one bone at the same time or more than one bone at different times, proposed risk factors for AVN include chemotherapy, alcoholism, excessive steroid use, sickle cell anemia, vascular compression, HTN, Vasculitis, arterial embolism. In the course of Avascular necrosis the healing process is usually ineffective and all these procedures are costly than the body can repair them, if left untreated the disease progresses the bone collapses and the joint surface breaks down leading to pain and arthritis. Management of Avascular necrosis aims at preservation of structure, function and relief from pain. Many surgical procedures such as drilling and insertion of bone grafts, modified Whitman or Colonna reconstruction and insertion of prosthesis are carried out to remedy the condition but all these procedures are costly than the prognosis being poor and not affordable for low economic people. Signs and symptoms of avascular necrosis are nearer to *Asthivaha Srotodusthi Vikara Ch.Su(28/13)*. An effort has been made in present study to assess the efficiency of Ayurvedic therapy as the conservative management of Avascular Necrosis of femoral head. A case of Avascular Necrosis with bilateral femoral head was treated with *Rukshana* followed by *MajjaBasti*. On the assessment of therapy there was no any complication found during study. Patient having encouraging results on assessment of symptomatic improvement based done before and after treatment. The therapy provided marked relief from pain and tenderness marked improvement in gait. Conservative management of Avascular Necrosis through Ayurvedic principle provides significant relief on the basis of symptomology and radiological investigation and help to improve quality of life.

Introduction: Avascular necrosis also called osteonecrosis, bone infarction, aseptic necrosis and ischemic bone necrosis is cellular death of bone components due to interruption of the blood supply, without blood the bone tissue dies and the bone collapses. If Avascular necrosis involves the bones of a joint, it often leads to destruction of the joint articular surfaces, avascular necrosis is especially common in the hip joint, variety of methods are now used to treat Avascular necrosis, the most common being the total hip replacement therapy. However total hip replacement surgery (THRS) have a number of downsides including long recovery times and hazards life spans, other treatments include decompression, where internal bone pressure is relieved by drilling a hole into the bone, the amount of disability that results from avascular necrosis depends on what part of the bone is affected, how large an area is involved and how effectively the bone rebuilding takes place after an injury as well as during normal growth. In the course of Avascular necrosis, however the healing process is usually ineffective because of poor blood supply and the tissue breakdown faster than the body can repair them, if left untreated the disease progresses the bone collapses and the joint surface breaks down leading to pain, arthritis and disability. Signs and symptoms of avascular necrosis are nearer to *Asthivaha Srotodusthi Vikara (disorder of musculoskeletal origin) Ch.Su(28/13)*¹ and

can be considered with *Gambhir Avastha* (chronic stage). An effort has been made in present study to assess the efficiency of Ayurvedic therapy in the conservative management of Avascular necrosis of femoral head. A case of Avascular necrosis with bilateral femoral head was treated with *Rukshana (Triphala, Vidang, Musta, Erandmula and Rasna)* followed by *MajjaBasti* prepared with *Asthimajja Pachak-Sidha Kwath* which. During the management Patient was not observed any complication. Patient was observed for symptomatic improvement based on assessment done before and after treatment, the result was encouraging. The therapy provided marked relief from pain and tenderness marked improvement in gait. So we can say that conservative management of AVN through Ayurvedic principle provides significant relief and improve quality of life.

AIMS AND OBJECTIVE:

1. To assess the effect of *Majjabasti* on Avascular necrosis of Femur
2. To study the effect of *Shaman Chikitsa* in patient of Avascular necrosis of femur

PLAN OF WORK:

The clinical study of this research work was conducted in the I.P.D of Government Ayurved Hospital

1. The patient was suffering from the Avascular necrosis of femur admitted in I.P.D of Government Ayurved Hospital
2. First of all *RukshanDravyas*(*Triphala* ,*Vidang* ,*Musta* ,*Erandamula* and *Rasna*)decoction was given to the Patient after that observe the Patients *Agni*.
3. *Majja*processed along with *AsthimajjapachakSidhaKwath*having *Tikta Rasaindicated* by *Charaka* to treat *Asthiand MajjaDusthi*. (C.C 28/124-127)²
4. **Preparation Of *MajjaBasti***:-40ml honey with 10 gram *Saindhava* were mixed properly then added 60 ml *Majja* (extract of bone marrow of *Ajja*) and 10 gram *Shatapushpa* powder again mix it then *AsthimajjaPachakKwath*(*Guduchi* 50% + *Musta* 20% + *Amalaki* 30%) added and stirred properly. (Ch.Si 3/23)
5. Prepared *Majjabasti* given for 21 days under observation and state of *Agni*.
6. After completion of management,assessment of pre and post clinical sign and symptoms on the basis of subjective and objective criteria.

CASE REPORT:

A 31 year old Female patient was reported to Outdoor patient Department of *Kayachikitsa* of Government *AyurvedHospital* presenting with complaint of 1.*Ubhay JanuSandhiShool* (Pain in both knee joint) 2. *Shool* in *Chankarman*(pain during walking) 3. *UbhayVankshanSandhiShool*(pain in both hip joint) 4.Pain-on movements in lower limb such as flexion, extension, lateral flexion and rotation.Patient was suffering from same complaint since two years, Which was associated with difficulty in doing normal activity such as walking for that she consult various private hospital and advised pain killers , which relieve symptoms for short duration but from 1 year patient realize increase in severity of symptoms not responding to even pain killers ,thereafter the doctor of orthopedics department diagnosed her problem as Avascular necrosis of bilateral neck of femur with the aid of MRI and advise her hip replacement of right hip joint and decompression of left femur but the patient refused to do so and she approached our hospital admitted here for further management and treatment.

ON EXAMINATION:

1. General condition of patient was moderate and afebrile.
2. Pulse:80/min
3. Blood pressure:130/70mm of hg
4. No pallor, no icterus
5. Systemic examination:
CVS:S1S2 Normal
CNS: Well oriented andconscious
RS:AE=BE, Clear
P/A: Soft,non-tender, liver, kidney, Spleen –Not palpable

AshtaVidhparikshan :

1. Nadi: Gati-72/min , Vata Pitta
2. Mala:Samakya
3. Mutra:Samakya
4. Jivha:Sama
5. Shabd:Spashta
6. Sparsha:Pakrut
7. Druk:Samakya
8. Akriti:Madhyma

VikrutStrotasParikshan:

- *Raktvaha*: K/C/O ITP *Vikrut*
- *Asthivaha*:*UbhayVankshansandhishool*(Pain in both hip joint) , *UbhayJanuSandhiShool* (Pain in both

knee joint)

- *Majjavaha*:Tingling sensation in Both lower limb , Pain during walking

Present Illness:

Patient was having above complaints from two years, for the said complaints. She taken treatment from various private hospital but didn't get relief. So thatpatient was came to the Govt.*Ayurved* hospital for further treatment.

- **Past History:** K/C/O AVN (since 2 yrs) and Hypothyroidism on tablet Thyrox 25 mcg /Empty stomach
- She has previous history of idiopathic thrombocytopenic purpura 2 yrs before
- K/C/O Sickle cell trait (2 and 1/2 yrs before)
- No H/O HTN ,DM
- No H/O : Trauma /Accident/fall
- NO H/O:Any other major surgical illness
- No H/O : Any drug allergy

Clinical Examination

Table no -1 Clinical Examination of Patient in lumber region

Straight leg raise test (Before treatment)	RT	LT
	40°	60°
Pump handle test	Positive	Positive
Sciatic nerve depression test	Negative	Negative
Lasagaessign	Positive	Positive

Table no -2

Clinical Examination of Patient for movement in lumber region

Examination	Before Treatment
Forward bending	Restricted up to 105°
Backward bending	190°
Lateral rotation	20° both side
Knee angel of flexion	Right 30° Left 40°
Hip angel of flexion	45°
Length from Left iliac crest to left toe	87 cm
Length from right iliac crest to right toe	85cm

Table no 3-

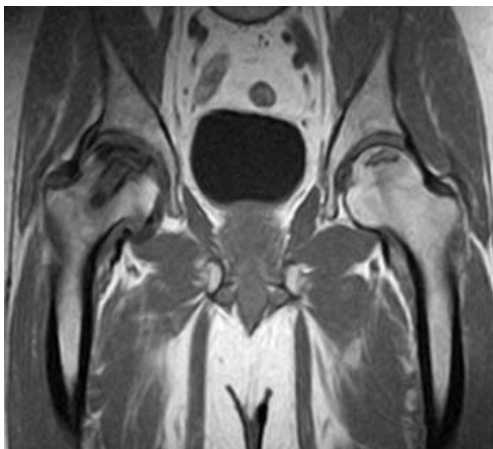
Pain Scale of Patient during Clinical examination-

Sr .no	Before Treatment
1	Pain is worst during movements
2	Cannot lift or carry weight at all
3	Pain in both hip joint during walking
4	Pain in both knee joint

Investigation:

Radiological Investigation

- X-ray dated on 17/12/2015 S/O- Secondary osteoarthritis changes of right femur head with AVN and left hip joint appear normal
- Thyroid function test – T3 -0.96
-T4-13.30
-TSH-7.579 (18/12/2014)
- USG Thyroid –S/O altered parenchyma eco-texture of thyroid
- MRI of both hip joint –changes of AVN in bilateral femoral head with arthritis on right side grade IV on right and grade II on left and right hip joint effusion 20/12/2015



MRI of both hip joint –changes of AVN in bilateral femoral head with arthritis on right side grade IV on right and grade II on left and right hip joint effusion 3/2/2016

Pathological Investigation:-

- Electrophoresis- S/O Sickle cell trait (12/04/2012)
- ANA –ve
- Bone mineral density-2.1
- CBC- Hb-11.5% ,TLC-8200/cumm ,DLC-66-%,L-2.9%,E+M-5%,ESR-19,Platelet count-2.66lacs/cumm
- USG Thyroid suggestive of altered parenchyma echo texture of Thyroid gland
- Blood sugar- Random 88 mg/dl
- Urine-routine and microscopic –NAD
- KFT , LFT And lipid profile –WNL(5/12/2015)

Managment:

1. First of all *Rukshan Dravyas* decoction was given to the Patient 20ml twice in a day before meal for 07 days after that observe the Patients *Agni* and *Jivha*.
2. *Snehan*(local oiling) by *Maharayan Tail* for 21 days. *Swedan* (*Nadiswedan* by *DashmulKwath*) for 21 days .
3. After that *Maajabasti* total 21 *Basti* were given in 21 days , *Majjabasti* is a type of *Anuvasan Basti* so was administered after meals
4. Assessment of pre and post clinical sign and symptoms on the basis of subjective and objective criteria
- 5.Total therapy duration was 28 days

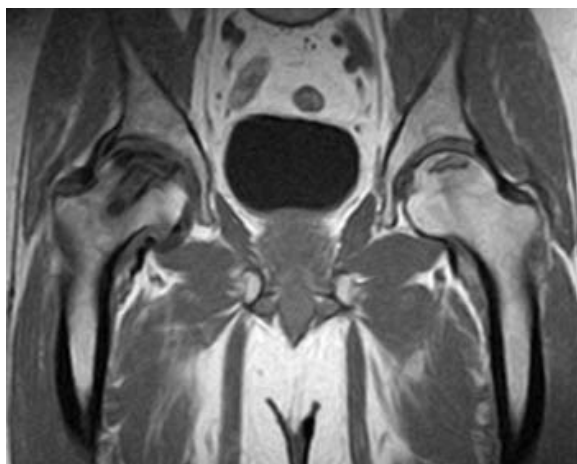
Table no -4 – Showing Bastipatarak

Sr. no	Date	Basti given	Matra	Basti Dharan Kala
1	23/12/2015	Majjabasti	130ml	10min
2	24/12/2015	Majjabasti	130ml	15min
3	25/12/2015	Majjabasti	130ml	10min
4	26/12/2015	Majjabasti	130ml	20min
5	27/12/2015	Majjabasti	130ml	60min
6	28/12/2015	Majjabasti	130ml	45min
7	29/12/2015	Majjabasti	130ml	6hrs
8	30/12/2015	Majjabasti	130ml	6hrs
9	31/12/2015	Majjabasti	130ml	7 hrs
10	1/12/2016	Majjabasti	130ml	7 hrs
11	2/1/2016	Majjabasti	130ml	4 hrs
12	3/1/2016	Majjabasti	130ml	6hrs
13	4/1/2016	Majjabasti	130ml	12 hrs
14	5/1/2016	Majjabasti	130ml	12hrs

15	6/1/2016	Majjabasti	130ml	20hrs
16	7/1/2016	Majjabasti	130ml	Whole day
17	8/1/2016	Majjabasti	130ml	12hrs
18	9/1/2016	Majjabasti	130ml	Whole day
19	10/1/2016	Majjabasti	130ml	Whole day
20	11/1/2016	Majjabasti	130ml	Whole day
21	12/1/2016	Majjabasti	130ml	Whole day

Result: The patient is symptomatically improved ,the subjective parameters show improvement in the clinical signs and symptoms, although in MRI there are no changes in after treatment and before treatment. But positive thing is that there is no deterioration in gradation of Avascular Necrosis. Although radiological investigation has no change but there was marked improvement in clinical signs and symptoms.

Before Treatment MRI



After Treatment MRI

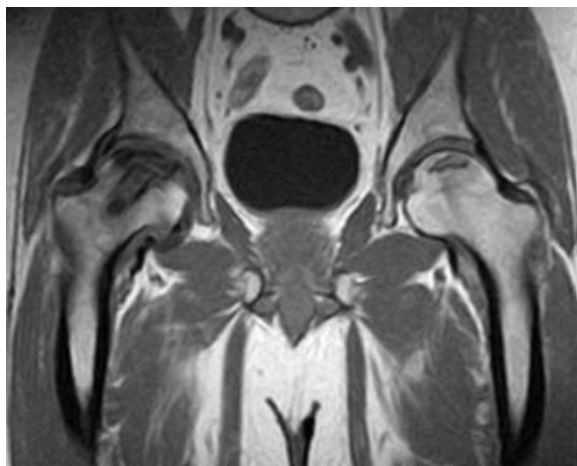


Table No-5 Clinical Examination of Patient in lumbar region

	BT	AT	BT	AT
Straight leg raise test	RT		LT	
	40°	90°	60°	90°
Pump handle test	Positive	Positive	Positive	Negative
Sciatic nerve depression test	Negative	Negative	Negative	Negative
Lasaguessign	Positive	Negative	Positive	Negative

Table no -6
Clinical Examination of Patient for movement in lumber region

Examination	Before Treatment	After Treatment
Forward bending	Restricted up to 105°	Up to 85°
Backward bending	190°	190°
Lateral rotation	20° both side	30°
Knee angel of flexion	Right 30 Left 40	Right 90 Left 90
Hip angel of flexion	45	90
Length from Left iliac crest to left toe	87 cm	87cm
Length from right iliac crest to right toe	85cm	86cm

Table no-7
Pain Scale of Patient during Clinical examination

Sr. no	Before Treatment	After Treatment
1	Pain is worst during movements	No pain during movements
2	Cannot lift or carry weight at all	Patient can carry weight without causing extra pain
3	Pain in both hip joint during walking	Not having any Pain in hip joint during walking
4	Pain in both knee joint	Pain in both knee joint decrease

DISCUSSION: The Patient of Avascular necrosis with the bilateral femoral head was treated with *Rukshana* followed by *Basti*, According physiological aspects in *Ayurvedic* texts, some *Acharya* while explaining *DhatupakaAvastha* (metabolism process) clearly detail the importance of *Agni* should be done by administration of *DipanPachanDravyasand* the process of *DhatuPaka* must be strengthen for early and good quality of *Dhatu* production(Ch.chi 15/5). In AVN there is *AsthiDhatu* impairmenthence the use of *MajjaBasti* lead to decrease *Dhatukshaya* which is caused due to *Vata Dosha* and may aid in neovascularization. The therapy provides marked improvement in the gait and pain. The above management shows encouraging results. The grade of AVN did not worsen and was maintained as seen during the follow up. The therapy is cost effective provide significant result and improve quality of life. This treatment is helpful in avascular necrosis to prevent the further more complication in avascular necrosis in this patient and study will be done on the large population.

CONCLUSION: In observation this patient is only 31 years old. The young age is not having such types of diseases. In present lifestyle, due to lacking of nutrition leads to such kind of diseases. Hence above *Ayurvedic* management maintain the health in cellular level. In *ayurvedic* prospective there is wide scope for management in *GambhirVyadhi*. The AVN is considered as surgical disease and there is no any positive conservative management in other system of medicine. So that, on the proof of this case increases the chances of non-surgical management and patient live naturally without any disturbance. This shows therapy is effective in Avascular Necrosis and it will be done in large population to serve the health to the mankind.

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