



AYURVEDIC MANAGEMENT OF FEMORAL HEAD OF AVASCULAR NECROSIS WITH PANCHTIKTAKSHEER MAJJA BASTI AND MAHAMANJISHTHADI GHAN VATI: A CASE STUDY

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ABSTRACT

Avascular necrosis (AVN) is a condition where there is interruption of the blood supply which proceeds to necrosis of bone components and causes collapse of bones. In *Ayurveda* it can be compared with a disease *Asthimajjajagata Vata* due to close resemblance in symptomatology and pathogenesis of both disease entities. The aim of this study is to find out an effective treatment protocol for it. The present case study is upon a 36-year-old male patient that diagnosed with avascular necrosis of femoral head having complaints of pain in left hip region for 6 months which was associated with difficulty in walking, sitting, squatting and climbing stairs which results to change in the gait. This patient was treated with *Panchtikta Ksheer Majja Basti* and *Mahamanjishtthadi Ghan Vati*. Assessment was done after treatment and follow up of 15 days. The therapies yielded complete symptomatic relief from pain, tenderness, general debility and improvement in the gait. After the treatment pain was reduced significantly with improvement in range of movements. Even the patient was able to walk and climb stairs without pain and stiffness. There was a reduction in VAS pain scale and marked improvement was noticed.

Keywords: *Asthimajjagata Vata, Panchatikta Ksheer Majja Basti, Mahamanjishthadi Ghan Vati, AVN.*

INTRODUCTION

The loss of blood flow to the bone, leading to death of the cellular components of bony tissues is known as Avascular Necrosis. Aseptic Necrosis, Osteonecrosis and Ischaemic Bone Necrosis are synonyms of AVN. There are a multitude of risk factors but over 80% of cases are attributed to glucocorticoids treatment or alcohol excess. AVN accounts for more than 10% of total hip replacement surgeries performed with a male to female ratio of 8/1. It is a disease of middle age that most often occurs in 4th or 5th decade of life and is bilateral in 55% of cases. The AVN is a condition affecting different bones as a result of transient/permanent loss of blood supply to the bones. Initially, patients are asymptomatic, but over the period it leads to joints destruction. In modern medicine treatment of Avascular Necrosis includes NSAID, bone grafting, joint replacement and physiotherapy which are not satisfactory in long term and having side effects and at last surgical treatment i.e., total hip replacement (THR)¹ is only the option. There is no universal satisfactory therapy that has been developed yet for the AVN. There is no direct correlation of AVN and *Asthi-Majjagata Vata* but on their clinical presentations it is *Vata Pradhana Tridoshaja Vyadhi* with *Vikruti* of *Asthi-Majja Dhatu*. In *Ayurveda* this condition can be clinically resembles with *Asthi Pradoshaja Vikara* in general and *Asthi Majjagata Vata* in particular. According to *Acharya Charaka* symptoms of *Asthimajjagatavata* are breaking type of pain (*Asthi bheda*), pain in all the joints (*Parvabheda*), muscular wasting (*Manshkshaya*), weakness (*Balakshaya*), insomnia (*Aswapna*), continuous bodyache (*Santatruk*). The *Acharya Charaka* has mentioned *Panchatikta Ksheera Majja Basti* in the management of *Asthimajjagata Vata* and in *Bhavprakasha Nighantu* has introduced *Mahamanjishthadi Kashayam* which modified in *Mahamanjishthadi Ghan Vati* in the managements of *Vatarakta*,

Pakshaghata and *Ardita* etc. This trial consists of *Panchatikta Ksheera Majja Basti* and *Mahamanjishthadi Ghan Vati* which do not have any side effects and withdrawal effects like modern medicines. Through this case study we will be able to counteract the symptoms of *Asthi-Majjagata Vata* (AVN).

AIM AND OBJECTIVES

- 1) To study the effect of *Panchatikṭakṣheera Majjabasti* and *Mahamanjishthadi Ghan Vati* in the management of *Asthimajjagata Vata* (AVN).
- 2) To find out an effective *Ayurvedic* Treatment Protocol for *Asthimajjagata Vata* (AVN).

MATERIAL AND METHODS

Selection and Source of patient for this clinical study, patient of *Asthimajjagata Vata* was registered from OPD of *Kayachikitsa* department (OPD No. – 20178912575 and IPD No. - 2022488) of Pt. Khushilal Sharma Govt. (Auto.) Ayurveda Hospital Bhopal (M.P.).

CASE PRESENTATION

Present Medical History

A 36years old male patient was diagnosed as case of AVN dated 22/03/2022 with OPD No. 20220012575 and IPD No. 2022488 at Pt. Khushilal Sharma Govt. Ayurveda Hospital Bhopal and presented with complaints of pricking type of pain in the left hip joint, restricted movements of hip joint and also found difficulty in walking, sitting and squatting Since 6 months. The nature of pain was continuous while walking or any other activity.

Past Medical History

Patient had history of *Aaghaat* (trauma) over hip joint at childhood. There is no Surgical history.

Personal History : Addiction- no, Occupation- Advocate, Appetite-poor, Sleep- disturbed (due to pain), Bowel- regular, Micturition- normal, Allergy- no

Family History: Not specific.

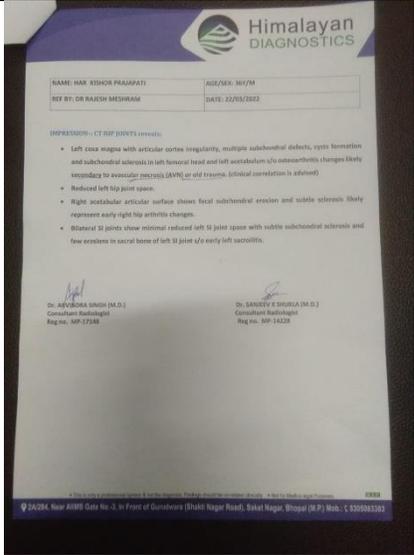
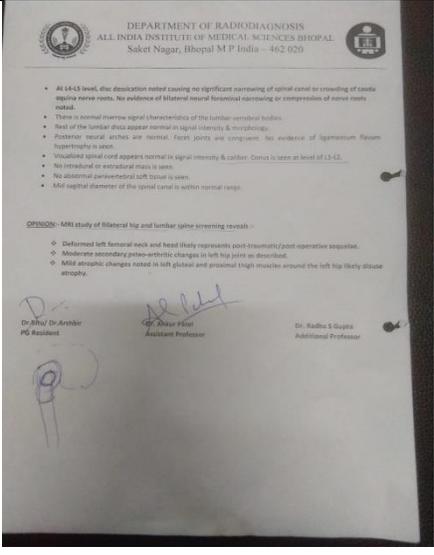
EXAMINATIONS

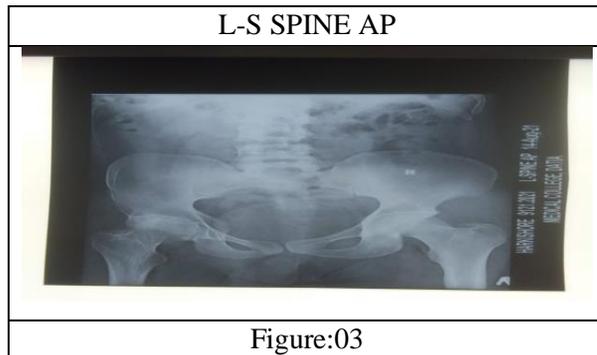
Table-01: General and Systemic Examinations

| General Physical examination | Systemic examination |
|---|---|
| <ul style="list-style-type: none"> • Appetite- Poor • Bowel- Regular • Bladder- Normal • Sleep-Disturbed • Temperature- Normal • Pallor- Absent | <ul style="list-style-type: none"> • Cardio Vascular System: S₁S₂ Normal, no added sounds. • Respiratory System: Normal • Gastrointestinal System: No abnormality detected. • Nervous System- Higher and motor functions are normal |

INVESTIGATIONS

- X-Ray and CT-Scan revealed that few osteophytes are seen arising from left acetabulum, mild reduced left hip joint space is seen and visualized upper left shaft appear unremarkable.
- MRI findings showed that osteoarthritis changes likely secondary to avascular necrosis (avn) or old trauma and reduced left hip joint space.

| CT Hip Joints | MRI Bilateral hip and lumbar spine |
|--|---|
|  |  |
| Figure:01 | Figure:02 |



DIAGNOSIS

In this disease, the diagnosis was first done based on her previous history, signs and symptoms. But the final diagnosis was done by CT scan and MRI findings of hip joint and X-ray (L-S Spine AP View).

PLAN OF STUDY

- Patient was not taking allopathic medicines during the study period.
- The drugs *Panchtikṭakṣheeramajja basti* along with *Mahamanjishthadi Ghan Vati* required for were procured and prepared in pharmacy of Pt. K.L.S. Govt. Ayurveda College Bhopal (MP).

Duration of Study –30 Days

Follow Up -Every day for 1 month.

TREATMENT REGIMEN

Table-02: Treatment regimen

| Drug | Dose | Anupana |
|--------------------------------------|--|----------------|
| <i>Panchatikṭakṣheera Majjabasti</i> | <i>Anuvasan Basti Bala Taila</i> -90ml (After meal) <i>Panch Tikṭakṣheer Majja</i> – 240 ml | - |
| <i>Mahamanjishthadi Ghan Vati</i> | 250 mg BD | Lukewarm Water |

Table-03: Ingredients of Panchatikṭakṣheera Majja Basti

| | |
|--|------------------------------------|
| <i>Anuvasan Basti</i> | 90ml <i>BalaTaila</i> (After meal) |
| <i>Ksheer Majjabasti</i> (Before meal) | |
| Ingredients | |
| <i>Madhu</i> (Honey) | 60 gm |
| <i>Sandhavlavana</i> (Rock salt) | 05 gm |
| <i>Madhuyashti, Chopchini kalka</i> (Herbal Powder) | 30 gm |
| <i>Panchatikṭa Ksheer Kwatha</i> (Herbal decoction processed with milk). The content of Kwatha are <i>Guduchi, Nimba, Vasa, Nidigdhi-ka, Patola</i> | 180 ml |
| <i>Majja</i> | 60 ml |

Table-04: Range of movement of Hip Joint Before treatment

| Joint | Flexion | Extension | Abduction | Adduction | Internal rotation | External rotation |
|-----------------|----------------------------|---------------------------|--|--|-------------------|-------------------|
| Left hip joint | 10 ⁰ Painful | 0 ⁰ Painful | 15 ⁰ With support painful | 15 ⁰ With support painful | Absent | Absent |
| Right hip joint | 90 ⁰ | 15 ⁰ | 40 ⁰ | 20 ⁰ | Normal | Normal |

RESULT

Table No. 05: Showing Pain VAS score²

| Parameter | Criteria | BT | | AT | |
|------------------|---------------------|---------|---------|---------|---------|
| | | Rt. Leg | Lt. leg | Rt. leg | Lt. leg |
| Pain (VAS scale) | (0) No pain | 0 | 5 | 0 | 1 |
| | (1-3) mild pain | | | | |
| | (4-6) moderate pain | | | | |

| | | | | | |
|--|--------------------|--|--|--|--|
| | (7-10) severe pain | | | | |
|--|--------------------|--|--|--|--|

Table-06: Assessment of Clinical Features Before and After Treatment

| Clinical features | Before Treatment | After Treatment |
|------------------------------|------------------|-----------------|
| Pain | 4 | 1 |
| Stiffness | 3 | 0 |
| Restricted Range of Movement | 3 | 1 |
| Gait | 3 | 1 |
| Radiograph (Ficat Scoring) | 4 | 4 |

Table-7: Range of movement of Hip Joint examination After Treatment

| Joint | Flexion | Extension | Abduction | Adduction | Internal rotation | External rotation |
|-----------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------------|-------------------|
| Left hip joint | 45 ⁰ Painless | 10 ⁰ Painless | 40 ⁰ Painless | 10 ⁰ Painless | Painful | Painful |
| Right hip joint | 90 ⁰ | 15 ⁰ | 40 ⁰ | 20 ⁰ | Normal | Normal |

DISCUSSION

Patient had history of *Aaghat* (trauma) over hip joint that is the specific cause of *Asthi* and *Majja Pradoshaj Vikara*³. Due to that patient gradually developed sign and symptoms of *Asthishoola* and *Asthi Bheda* with *Asavpana*, *Santataruka*, *Mansbalakshaya*, similar to *Asthi Pradosaj Vikara* in general and *Asthimajjagatavata* as a particular *Vatavyadhi*⁴⁻⁵. According to *Acharya Charaka* there is no cause greater than *Vata* in the manifestation of disease and there is no better remedy other than *Basti*. *Basti* is the most important constituent of the *Panchakarma* due to its multiple effects. *Basti* eradicates morbid *Vata* from the root along with other *Dosha* and in addition provides nutrition to the body tissue. To treat AVN, drugs of *Panchatikṭakṣheer Majja Basti*⁶ acting on both *Vata Dosha* and *Asthi Dhatu*. According to *Acharya Charaka* in *Asthidhatu dushti* the treatment should be given as *Ghrita* and *Ksheera* of *Tiktadraya*. The ingredients of *Panchatikṭa -Ksheera Basti* are of *Tikta Rasa* which is having predominance of *Vayu* & *Aakash Mahabhuta*. Hence, it has got resemblance towards body elements like *Asthi* (bone tissue). Further *Tikta* drugs having adoptogenicity, proves *Vataghna* & *Rasayana* (*Dhatuvardhaka*) & improves *Dhatwagni* (metabolic fire). It performs *Pachana Karma*, destroys *Srotorodha* (channel obstruction)

) leading to pacify *Vata dosha* & improve metabolism. The decoction made in *Ksheera* (Milk) which having *Madhura* & *Snigdha* properties which helps to control *Vatadosha* & *Pitta dosha* acts as *Brimhana*. Due to *Sukshma gūṇa* of *Saindhava*; it reaches up to micro channel of body & helps to open fresh blood supply to the bone tissue⁷. As a results *Asthi Dhatu*, *Majja Dhatu* may get stable and *Asthi-majja dhatu Kshaya* will be decreased. So degeneration in *Asthi dhatu* may not occurs rapidly. The ingredients of *Panchatikṭa -Ksheera Basti* are of *Tikta Rasa* which is having predominance of *Vayu* & *Aakash Mahabhuta*. Hence, it has got resemblance towards body elements like *Asthi* (bone tissue). Further *Tikta* drugs having adoptogenicity, proves *Vataghna* & *Rasayana* (*Dhatuvardhaka*) & improves *dhatwagni* (metabolic fire). It performs *Pachana karma*, destroys *Srotorodha* (Channel obstruction) leading to pacify *Vata dosha* & improve metabolism. The decoction made in *Ksheera* (Milk) which having *Madhura* & *Snigdha* properties which helps to control *Vatadosha* & *Pitta dosha* acts as *Brimhana*. The *majja* nourishes *asthi* by means of its *Purana* (filling) and *Snehan* properties and pacifies vitiated *vata* in *asthi*. *Ushnaveerya* cures *Vata Janya shoola*. Hence synergetic action of *Majjabasti* will act as *vatashamaka* which is beneficial in *Asthimajjagatavata*. *Anuvasana Basti* with *Bala Taila - Bala* having *Madhura Rasa*, *Guru*,

Snigdha guna, *Sheetveerya* and *Madhura vipaka*. It possess *Vata Pittahara* property and is *Balya* in nature. Also by having anti-inflammatory property it calms nerves and helps in muscle strengthening. AVN of hip joint develops due to obstruction of small blood vessels supplying to femoral head. Thus, *Raktavaha Srotorodha* becomes prime cause leading to *Asthi Dhatu Kshaya* in the hip joint. To counter this *Rakta Dushti*, *Manjishthadi Ghan Vati* was administered. *Mahamanjishthadi Kwath* is *Tikta*, *Katu Rasapradhana* and *Ushna virya* which acts as *Raktaprasadaka* and *Tridosahara*. Blood purifier and immunomodulator. It detoxifies the blood, removes stagnant blood, and dissolves obstructions in the blood flow. It improves blood circulation of body. *Mahamanjishthadi Ghan Vati* has got antagonistic qualities towards *Kapha* and to *Pitta* as well as *Rakta* due to presence of *Mahamanjishthadi Kwath*

CONCLUSION

The enema therapy in the current case provided marked relief from pain, stiffness, general debility, and marked improvement in the gait. The grade of AVN did not worsen and was maintained well. This was a single case study to evaluate the efficacy of *Panchtikta Ksheera Majja Basti* along with *Mahamanjishthadi Ghan Vati* in the management of *As-thimajjagata Vata* (AVN) and the results produced were encouraging enough on the subjective and objective parameters but also provided the prevention of disease progression.

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