

MANAGEMENT OF AVASCULAR NECROSIS OF FEMORAL HEAD BY AYURVEDIC
NEURO THERAPY: A CASE STUDY

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ABSTRACT

Avascular Necrosis (AVN) of the femoral head is a condition characterized by the interruption of blood supply, leading to the death of bone tissue. In Ayurveda, it is essentially related to *Asthivahashrotadustivikar*, with the diagnosis of the case associated with *Asthimajjagatvata*. The causes of this type of necrosis are multiple, with many still unknown. The management of AVN aims to preserve the structure, function and alleviation of signs and symptoms resembling musculoskeletal disorders such as *Asthivahashrothdustivikar*. The present study focused on evaluating the efficacy of Ayurvedic Neuro Therapy with Ayurvedic medication in the management of Avascular Necrosis. Patients were observed with symptomatic improvement after the treatment. Ayurvedic neuro therapy demonstrated significant relief in pain, tenderness, stiffness and swelling. The grade of AVN did not worsen during the follow-up, and Ayurvedic neuro therapy proved to be cost-effective, providing significant relief and improved overall quality of life of patients.

KEYWORDS: Avascular Necrosis, *Asthimajjagatvata*, *Agnikarma*, *Jalaukavcharan*.

INTRODUCTION

Avascular Necrosis is conditions characterized as death of bone tissue due to lack of blood supply to the tissue. It is more common in middle age (35 to 55 years). AVN of the hip joint is diagnosed at a rate of 16,000 new cases per year and the prevalence is higher in men than women. This condition mainly affects hip joints; sometime this disease affects other joint like shoulder, knee and ankle joint. Avascular necrosis is also known as osteonecrosis which progresses traumatically or non-traumatically. Non traumatic osteonecrosis is usually associated with prolonged corticosteroid intake, systemic lupus erythematosus, sickle cell anemia, pancreatitis, gout and alcohol abuse, etc. The major symptoms of disease are depicted in **Figure 1**.

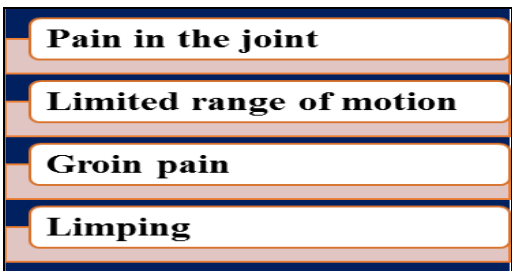


Figure 1: General symptoms of avascular necrosis.

The treatment is challenging and advanced stages of avascular necrosis needs total hip arthroplasty since common site of AVN is femoral head of hip joint. AVN less commonly occurs in other bones of the body. Pain and discomfort are the main symptoms which interfere with daily activities and reduce the quality of life as the disease progresses. Joint function can be compromised especially if the affected bone is near a joint such as the hip or knee. This can lead to difficulty in walking or performing routine tasks. In many cases as AVN progresses, surgery like bone grafts or joint replacement may become necessary to restore function or relieve pain. Surgery comes with its own set of challenges, including potential complications and recovery time. Dealing with a chronic condition can result in mental and emotional stress. The persistent pain and difficulties in mobility may give rise to depression and anxiety. Considering these all aspects and severity of disease we planned a study to evaluate the effect of Ayurvedic Neuro Therapy and medications in the management of Avascular Necrosis.^[1-8]

AIM AND OBJECTIVES

- ✓ To study the effect of ayurvedic neuro therapy in the management of *Asthimajjagatvata* (Avascular Necrosis).

- ✓ To evaluate the efficacy of ayurvedic neuro therapy along with medicines in the symptoms and severity of Avascular Necrosis.

MATERIAL AND METHOD

- **Study design:** Sample interventional clinically study.
- **Study area:** Ayurvedic Neuro Hospital, Kota, out-patient department (OPD).
- **Sampling:** All patients were selected by simple randomization method.
- **Sample size:** 10 patient of AVN, based on inclusion criteria.

Inclusion criteria

- ✓ Patient will be randomly selected between the age group of 35 to 55 years.
- ✓ Patient diagnosed with AVN as per modern view.
- ✓ Patients having symptoms of *Asthimajjagatvata* according to Ayurveda concept.
- ✓ Patients selected irrespective of their religion, caste, sex & occupation.

- ✓ Patient who have been diagnosed as cases of *Asthimajjagatvata*, possessing clinical feature of this disease including; *Bhedo-asthiparvaran*, *Sandhi shula*, *Satatruk* and *Asvapana*. These symptoms can be co-related with symptoms of Avascular Necrosis.

Exclusion criteria

- ✓ Any significant history of fracture, operational interventions and carcinoma.
- ✓ Congenital anomalies involving the hip.
- ✓ Neuro muscular disorder such as cerebral palsy and poliomyelitis etc.
- ✓ Patients not violated inclusion criteria as mentioned above.

Assessment criteria scoring

Effect of ayurvedic neuro therapy was assessed on the basis of scoring system as mentioned in **Table 1**. Hip joint movement ranges like i.e. extension, flexion, rotation (both internal & external) was measured along with pain scale.

Table 1: Gradation of assessment criteria.

S. No.	Pain	Stiffness of Hip Joint	Range of Hip Joint	Score
1	No pain	No Stiffness	No restriction (130°)	0
2	Pain can ignored	Stiffness Present	Initially Restriction (90°-130°)	1
3	Pain hurt little more	After sitting & walking seen stiffness	Partial Restriction start (70°-90°)	2
4	Pain hurt even more	Stiffness retain	Restricted with pain (45°-70°)	3
5	Bed rest must	Stiffness whole day & night	No movement (0°)	4

Follow Up

After the treatment of 07 days (14 Therapy) along with oral medication, patients were asked to come for the follow up after 15 days or one month period, depending upon the severity of disease.

Advices

- ✓ The patients were advised to take routine *Pathya* diet & avoid *Apathya* diet.
- ✓ The patients were advised to avoid heavy weight lifting.

Treatment Given/therapeutic protocol

1. *Nidan Privarjan* and *Pathya-Apathya* at initial stage.
2. *Alabu* (Hot cupping), *Suksham Agnikarma* (Hot needle therapy), *Ghati yantra* (Vacuum cupping), *Jaloka* (blood-letting), hip *Basti* and *Shiravedh*, in later stage of therapy.

Overall assessment of therapy

The effect of therapy was considered as cured, marked improvement, moderate improvement and mild improvement based on the following criteria:

- ✚ Cured (100% relief in sign & symptoms).
- ✚ Marked improvement (>75% ≤ 100% relief in sign & symptoms).
- ✚ Moderate improvement (>50% ≤ 75% relief in sign & symptoms).

- ✚ Mild improvement (≤50% relief in sign & symptoms).

RESULT AND DISCUSSION

The Avascular Necrosis is considered as death of bone tissue due to the occlusion of blood vessels that affects blood supply to the femoral head of joints. This condition affects daily routine life of patient. In this disease pain generally occurs in femoral/hip joint that becomes worsen as disease progress. The diagnosis of disease in initial stage is important since in later stage the lack of blood & nutrition supply causes *Dhatu kshaya* of *Asthi dhatu* which leads condition of *Asthimajjakshya*.^[9-12]

Present study evaluated the effect of Ayurvedic neuro therapy & medicines in the management of Avascular Necrosis. In present study maximum patients was fall under the age group of 35 - 55 years. It was believed that this therapy increases blood circulation to the affected area therefore offers relief in disease symptoms. The therapy eliminated *Dhatu kshya* by nourishing tissue. *Alabu* and *Ghati yantra* helped in nerve cell regeneration by regulating blood supply; furthermore it also nourished the nerve ending. *Jaloka* and *Shiravedh* were believed to initiate blood circulation in affected area.^[7-10] Orally administrate drugs like *Amarsundarivati*, *Maharasnadiquath*, *Purnavadiquath*, *Vatagajankushras*, *Panchloh* and *Lakshadiguggula*, etc. offers

Vatakaphajahara property thus relieves symptoms of *Asthimajagat Vata*.^[6-9] Most of the patients observed under the criteria of cured (100% relief in sign & symptoms) and no patient found under the heading of

mild improvement ($\leq 50\%$ relief in sign & symptoms). The *Vatavyadhi chikitsa siddhant* imparted positive effect in the management of AVN as depicted in **Table 2**.

Table 2: Improvement in range of movement.

S. No.	Movement range	Degree of rotation before treatment	Degree of rotation after the treatment
1	Flexion	80	90
2	Internal Rotation	Painful (20)	30
3	External Rotation	15	20

CONCLUSION

As per modern science there is no permanent cure in the initial stage of Avascular Necrosis. Core decompression & hip replacement in the later stage are the only suggested options which sometimes offer complication. Ayurvedic Neuro Therapy for AVN helps to improve range of movement of femur/hip joint and also reversed the severity of disease. In present study Ayurvedic diagnosis of the case was established as *Asthimajagatvata*, indicating a disturbance of *Vata dosha* in bone and bone marrow tissue. Treatment involved seven days of Ayurvedic Neuro Therapy twice a day, complemented by oral Ayurvedic medications. Therapy contributed towards the repair, regeneration and nourishment of cells and *Dhatus*. The study suggested that Ayurvedic Neuro Therapy (*Alabu*, *Ghati yantra*, *Shukshma agnikarma* and *Agnikarma*, etc.) can be used for the management of AVN. However further study on large population for longer period of time is recommended.

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