

**ASTHI-MAJJAGATA VATA DISORDER OF FEMORAL HEAD POST
CORTICOSTEROID THERAPY W.S.R. TO A.V.N.- A CASE STUDY**

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ABSTRACT

Avascular Necrosis (AVN) is a progressive disorder with steroid intervention as the prime choice. AVN is a condition affecting different bones as a result of transient / permanent loss of blood supply to the bones. Eventual collapse of the bone tissue and its death is the resultant of the ischemia along with its overlying joint surface. AVN is caused due to arterial occlusion and femoral head is most common type of necrosis affecting the bones. Progressive increase of the pain worsens with time and patient experiences pain on rest associated with stiffness. The features of *Asthimajjavruta Vata* can be correlated with AVN. In current study a single male patient of 57 yrs of age having signs and symptoms of AVN and MRI, X-RAY bilateral hip showing AVN of femoral head was selected and *Panchakarma* treatment was

administered for 3 month in department of *Panchakarma* S.S.S.B. Ayurved college K. Renwal, Jaipur (Raj.). This is a case report demonstrating that a combination of *Ayurvedic* medicines and procedures may be helpful to arrest further necrosis and rejuvenate the bones. It also provides highly significant results in improving range of movements and pain intensity. This line of treatment provided a highly significant result was observed and there was improvement in cardinal symptoms of AVN.

KEYWORDS: Anuvasan Basti, Asthi-Majjagata Vata, Madhur-Tikta Ksheera Basti Majja Virechana.

INTRODUCTION

AVN has several causes. Loss of blood supply to the bone can be caused by an injury (trauma related avascular necrosis) or by certain risk factors (non-traumatic avascular necrosis), such as some medications (steroids), blood coagulation disorders, or excessive alcohol use. Increased pressure within the bone also is associated with AVN. AVN in which there is cellular death of bone tissue due to interruption of the blood supply due to injury or any occlusion in the blood vessel nourishing the bone tissue, this leads to ischemia. The ischemia causes the death and eventual collapse of the bone tissue, with its overlying joint surface.^[1] AVN of femoral head is most common type of necrosis affecting the bones. Higher usually, incidence is found in 4th to 5th decade of life with male:female ratio being 8:1.^[2]

Corticosteroid therapy, irrespective of the mode of administration, either oral, parenteral, or topical has its own risk of developing corticosteroid induced side effects. AVN of femoral head has been reported secondary to systemic as well as topical therapy with corticosteroids in patients with dermatological diseases like psoriasis, eczema, contact dermatitis and SLE.^[3]

AVN is clinically characterized by gradual onset of pain and limitation of motion. Pain may be localized to groin area but may radiate down the affected limb or ipsilateral buttock, knee or greater trochanteric region. Pain is exacerbated with motion or weight bearing and relieved by rest. Passive range of motion of hip is painful, especially forced internal rotation. A distinct abductor lurch and rotation, with limitation of abduction and adduction is seen. Atrophy of the proximal muscles may be associated.^[4] Limping, which may be unilateral or bilateral is also seen.

In *Ayurvedic* text the clinical features of *Asthimajjagata vata* described as *bhedo-asthiparvanam* (breaking type of pain in bones), *sandhishula* (joint pain), *satata ruk* (continuous in nature), *mamsabalakshaya* (loss of strength and muscles weakness) and *asvapna* (disturbed sleep), which can correlate with the symptoms of AVN.^[5]

MATERIAL AND METHOD

A 57 year old male from Kishangarh-Renwal, Jaipur, Rajasthan. Presented with pain in bilateral groin and hip joints. MRI hip shows left hip AVN with changes causing distortion & subarticular degeneration seen in left femoral head with mild joint effusion came in Panchakarma OPD of S.S.S.B. Ayurvedic College K.- Renwal, jaipur (Raj.).

Patient complaints of intermittent pain in both groin, hip (Grade 3) since 8 months *gaman-akshmtata* (Grade 3), stiffness at left hip region (Grade 2), Restricted movements of hip joint (Grade 2) with disturbed sleep due to pain. On examination range of motion of left hip was limited & painful in all range.

On history taking, he had severe pain in both hip joints. Transient relief was found with conventional treatments. Thereafter his condition gradually worsened and he developed inability to walk without support. MRI & X-Ray of both hip joint showed osteonecrosis of the femoral head, stage III.

Personal history revealed mixed diet, irregular bowel and disturbed sleep (due to pain). Previously he had habit of tea, smoking and alcohol but not now. He had history of skin disease since fifteen years for that he was taking corticosteroids intermittently during attacks.

Investigation

1. X-Ray- bilateral hip joint & femoral head degeneration
2. MRI- bilateral hip AVN with distortion & subarticular degeneration in left femoral head is more as compared to right.

Assessment Criteria

Table No. 01: Assessment criteria was made for symptoms.

Symptoms	Severity/Duration	Score
Santata Rujā (continuous Pain)	No pain	0
	Occasional pain	1
	Moderate pain and slight difficulty in walking	2
	Severe pain with severe difficulty in walking	3
<i>Sandhi Graha</i> (Stiffness)	No stiffness	0
	Stiffness for 30 min	1
	Stiffness after sitting & walking for long time	2
	Stiffness whole day or whole night	3
<i>AkunchanPrasaranjanya Vedana</i> (Restricted movements of joints)	No Restriction	0
	Partially Restriction	1
	Fully Restricted	2
<i>Gamankashmata</i> (Walking distance with pain)	No pain while walking	0
	Mild pain while walking	1
	Moderate pain while walking	2
	Severe pain while walking	3

Line of Treatment

AVN is diagnosed as a Vata vyadhi, to treat the vata first *Snehana Swedana* and *Abhaynga* is applied.^[6] AVN has most adverse effect on bone, so it is required *Panchakarma* procedures. *Asthi* and *Vata* has *Asharaya-Ashrayi bhava* so it must to correct *vata* first to treat bone disease. To treat *Majjagata* disorders *madhur, tikta ras dravyas* in medicine & food, *Shodhana Chikitsa* viz *vamana & virechana* is prescribed.^[7] Basti is first treatment to treat vata. Basti prepare by milk, ghrit, and tikta dravyas are given to bone disease.^[8] AVN is understand by *Asthi-Majjagata Vata*, so there is must to line of treatment for Vata. In case of pure Vata Roga there is need to use of *ghrit, tail, vasa, majja* as *snehana* in body for *Vata roga*.^[9] For *vata vyadhi's* patient it is required to *bruhana* for regain its health, so as considering this the rasayan drug is also choice. *Mahasneha* is the combination of four *sneha* viz. *ghrit, tail, vasa, majja*. advised in *sira, asthi* and *majjagata* disorders.^[10]

MANAGEMENT

Following treatment was started for 3 month

A- Shamana Chikitsa-

(1) Panchtiktaghrita guggulu - 2-2 tab.

Panchamrit lauha guggulu - 2-2 tab.

Abha guggulu - 2-2tab.

B.D. with *Ghrita* in Morning & Evening Before meal

(2) Indukant ghrita - 10 gm

Mahatikta ghrita - 10 gm

B.D. with luke warm water in Morning & Evening Before meal

(3) Asthiposhak tab. - 2-2 tab

Praval panchamrita - 2-2 tab.

B.D. with luke warm water in Morning & Evening after meal

B-Shodhana Chikitsa.

1- External *Abhyanga - Swedana* and *Matra Basti* for 10 days

2- After ten days *Snehapana* for seven days with *Mahatikta Ghrita & Indukanta Ghrita* in increasing order of dosages.

3- Plan for *virechana karma*- After completion of *Snehapana*, three successive days *Abhyanga - Swedana* and then fourth day *virechana* with *Trivrutavleha* – 150gm followed by 7 days *Samsarjana krama*.

4- Plan for *Basti Karma (Karma Basti)*-

a- *Anuvasan Basti* (150 ml) with *mahamasha Tail+ mahatikta Ghrita+ Aja Vasa + Aja Majja* in evening time

b- *Niruha Basti* (900 ml) in Afternoon

Niruha Basti composition-

Madhu- -100 gm

sandhava lavana - 10 gm

Sneha - 150 ml

(*Mahamasha Tail+ Mahatikta Ghrita+ Aja Vasa + Aja Majja*)

Puto-yavaniyadi kalka - 20 gm

kashaya - 500 ml

(*Panchtikta dravya+ Ashwagandha Shatavari Vidarikand Kapikachchhu beej*)

Nimbamritasava - 100 ml

OBSERVATION AND RESULT

Pain was reduced after *snehapana* with *indukant ghrita & mahatikta ghrita* for seven days. It is due to *vata shaman* by *snehan karma & brumham karma* of *sneha*. After *virechan* he reported that there was pain in hip joint. *Majja* plays very important role in the treatment of *Asthi-majjagata* disorders. In *basti karma anuvasana basti* as well as *niruha basti majja* was the main content. Pain shifted from grade 3 to grade 0 *gamanakshamta* shifted from grade 3 to 0 *sandhhigraha* from 2 to 1 *AkunchanPrasaranjanya Vedana* (SLR) from 2 to 1. Patient reported pain relieved after 3 month treatment.

At the end of treatment, patient had complete relief from stiffness, pain intensity reduced, increased strength and range of movements and walking without any support. X-RAY of hip joints was repeated after 3 month of treatment but there was no marked improvement as compared to the previous findings. On the other hand there was no further structural damage to the both hip joint even there is finding of start regeneration.

DISCUSSION

On the basis of symptoms and its pathogenesis AVN can be correlated with *Asthimajjagat vata* which is a described under *vatavyadhi* by *acharya charak & vagbhata*.^[11,12] *Vataprakopa* is due to either *dhatukshaya* or *avarana*. *Ayurvedic* pathogenesis of AVN is as follows- *Vata* dominant dietary and leaving pattern, harmful action to tissues (which further cause of *dhatukshaya* in body) or due to any drug administration which cause *Ama* (toxin for body) cause *avarana* (obstruction) in body is responsible for *Vataprakopa*. In this case,

Ayurvedic pathogenesis can be formulated as follows: Administration of corticosteroids lead to *aama*^[13] formation and *srotorodha* (obstruction). Consequently the *Raktadhatu* (blood tissue) supply to the femoral head is decreased. Increased pressure within the bone also is associated with AVN. It leads to decreased nutrition supply to that part and reduction in density (*asthi dhatu kshaya*). Here *dhatu kshayajanya* (reduced blood supply) and *avarajanya* (drug toxicity leads to *Aama* formation which cause *srotorodha* /obstructions in blood supply) *vataprakopa* leads to *asthidhatu kshaya* as increased *vata* is responsible for *asthi kshaya* even after the relation of *ashraya- ashrai bhava*. As *majja* resides in *asthi dhatu*, it may further results in *majjdhatu kshaya*. AVN is degenerative disease in which *asthikshaya* occurs due to *sarakta majjakshaya* occurs then *vataprakopa* occurs at *asthi*. If *dhatuvrudhi* and *Kshaya* occurs that *dhatuashrit dosha* also increases or decreases, except for *asthidhatu*. If *asthikshaya* occurs *vatavrudhi* is occurs & vice versa.^[14]

Panchatikthaka ksheeravasti was planned as it is indicated as a treatment modality in *asthi pradoshaja vikaras*. *Tikta rasa* and *asthi* in the body has a predominance of *Vayu* and *Akasha Mahabhuta*. Owing to same *Mahabhuta* composition, *Tikta rasa Basti* has got a special affinity towards *asthidhatu*. *Ksheera* has *madhura* and *snigdha guna* which helps to control *Vata dosha* by *brumhana*. Hence, *Ksheera Basti* is found to be efficacious in *asthikshaya*.^[15]

So as per the *asthivaha strotas* & *vatavrudhi*, *Snehana*, *Swedana*, *abhaynga*, *virechana*, *basti chikitsa* & *Vata shamak chikitsa* had been given.

CONCLUSION

AVN of femoral head, a crippling disorder, is one of the unnoticed side effects of corticosteroid administration with surgical intervention as the main stream of treatment in modern medicine. Extensive and irrational use of corticosteroids for treating several skin diseases is on the surge. This case study discussion support the *Ayurvedic* textual reference i.e. *Asthi- Majjagata Vata Chikitsa*. After the above symptoms were relieved and no side effects were seen. This case showed encouraging results as within 3 month of treatment, patient could walk without support; the range of movement was also found satisfied. From this study, it is stated that *Ayurveda* can be a promising alternative in AVN for Total Hip Replacement. Further clinical trials are needed to establish a standard management of Avascular necrosis.

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