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"MANAGEMENT OF AVASCULAR NECROSIS (AVN) WITH AYURVEDIC APPROACH: A SINGLE CASE STUDY"

Dr. Narmada S. Meshram¹, Dr. Archana S. Dachewar²

- 1. PG Scholar, Dept. of Kayachikitsa, Shri Ayurved Mahavidyalaya, Nagpur, Maharashtra.
- 2. Professor & HOD, Dept. of Kayachikitsa, Shri Ayurved Mahavidyalaya, Nagpur

ABSTRACT:

Vascular necrosis is the death of bone tissue due to a lack of blood supply. Also known as osteonecrosis, it can lead to small breaks in the bone and lead to bone collapse. A fracture or double joint can stop blood flow in the bone section. Vascular necrosis is also associated with long-term use of high doses and too many alcoholic steroid drugs (1). Here we present a case of a 48-year-old man with vascular necrosis of the femoral head on both sides (FICAT stage III on the left, stage II on the right). It may correlate with Asthimajagat Vata. The Ayurveda management team includes Shaman Chikitsa and Shodan Chikitsa. This case highlights challenges related to Asthimajagat Vata (AVN) and highlights the importance of timely interventions and interdisciplinary care.

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KEY WORDS:- Avascular necrosis, Asthimajjagat vata, panchatikta ksheera basti, Jalaukavacharana.

Corresponding Details:

Dr. Narmada Meshram Shri Ayurved Mahavidyalaya, Nagpur Mobile No. 8600242556

E-Mail: narmada.meshram1997@gmail.com

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INTRODUCTION

Vascular necrosis is the death of bone tissue due to a lack of blood supply. Osteonecrosis has also been mentioned, leading to small bone breaks and potentially bone collapse. This process usually takes months to years. Fractured or distributed joints can stop blood flow in the bone section. Vascular necrosis is also associated with high-dose steroid drugs and longterm use of too much alcohol. Although everyone can be affected, this disease is most common among people aged 30 to 50. Some people are symptomatically free from the early stages of vascular necrosis. If the condition worsens, the affected people can only injure the joints if they place weight on them. After all, they could feel the pain even if they lay down. The pain can be mild or severe. It usually develops gradually. Pain associated with vascular necrosis in the hip joint can be concentrated in the bar, thighs, or butt area. It can be affected in addition to the waist, shoulders, knees, hands, and feet. Some people develop vascular necrosis on both sides, like both hips or both knees. Vascular necrosis occurs when blood flow is interrupted or reduced. A decrease in blood supply can be caused by trauma to the joint or bone. Damage like contaminated joints can be damaged near blood vessels⁽²⁾. Cancer treatment with radiation can damage bones and blood vessels. Fat deposits within blood vessels. Fats (lipids) can block small blood vessels. This can reduce blood flow⁽³⁾. Certain diseases, such as sickle cell anemia and Gershwin disease, can also reduce blood flow to the bone. The causes of vascular necrosis that are not applicable due to trauma may not be fully understood. Genetics combined with overuse of alcohol, certain drug therapies, and other diseases are likely to play a role. Untreated vascular necrosis worsens. After all, bones can collapse. Avascular necrosis can also cause the bone to lose its smooth shape, possibly leading to severe arthritis⁽⁴⁾.

CASE REPORT nal Journal of Ayurveda & Yoga

A 48-year-old male patient approached Pakwasa Samanvaya Rugnalaya, Nagpur, on September 4, 2024, with complaints of bilateral hip joint pain, difficulty during walking, and inability to walk for longer durations. He was diagnosed with FICAT stage III on the left side and stage II on the right side. He has been a known case of hypertension for 6 years.

CASE HISTORY:

A male patient aged 48 years was said to be healthy until September 4, 2024. He presented with a sudden onset of bilateral hip joint pain, difficulty during walking, and an inability to walk for a longer duration. He was diagnosed with avascular necrosis of the head of the femur on either side (FICAT stage III on the left side and stage II on the right). He approached Pakwasa Samanvaya Rugnalaya later for further management. So he got admitted to our hospital for treatment of the same. He underwent Ayurvedic management and was

discharged with remarkable improvement.

PAST HISTORY:

K/C/O Hypertension since 6 years on medication Tab Telmisartan 40 mg OD No H/O Diabetes Mellitus, Bronchial Asthma, IHD, Thyroid disorders.

Personal History

Bowel: passed

Micturation: passed

Diet:Normal diet

General Examination

BP:130/80mmHG

PR:74/min

RR:20times/min

Temp: 98.2F

Edema- No

Pallor- No

Icterus- No

Clubbing-No njeevani Darshan

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AsthaVidha Parikshana

Nadi: Vata Pittaja

Mala:samyak

Mutra:samyak

Jihva: Saam

Shabda: Spastha

Sparsha: Anushnasheeta

Druka: Spects present

Akruti: Madhyam

Systemic Examination

Respiratory sound: on Auscultation, AEBE equal, no abnormal sound detected

Cardiovascular sound: S1S2 nor

Gastrointestinal system: tender, no organomegaly detected

Central nervous system:

Consciousness-conscious Orientation-fully oriented,

Motor Function -Gait-Difficulty during walking

ON EXAMINATION:

Table no. 1 SLRT:

SLRT (BT)	Active	Passive
Rt. Leg	60 degree (Painful)	80 degree (Painful)
Lt. Leg	50 degree (Painless)	70 degree (Painless)

Table no. 2 VAS for hip joint: urnal of Ayurveda & Yoga

BT	Left	Right
VAS for Hip joint pain	8/10	7/10

SPECIFIC INVESTIGATION

MRI hip done on 24/06/2024 shows Avascular necrosis of head of femur on either side (FICAT stage III on left side and stage II on right) Case was diagnosed as Asthimajjagatvata(AVN).

MATERIALS AND METHODS

Centre of Study: Pakwasa Samanvaya Rugnalaya IPD, Nagpur. Simple random, single case study.

Treatment Advised

Table no. 3: Shaman chikitsa:

SrNo	Nameof Medicine	Dose	Kaal	Anupana
1	Trayodashang guggul	250 mg	Vyana Udana kaala	Koshna jal
2	Panchatikta ghrut guggul	250 mg	Vyana Udana kaala	Koshna jal
3	Asthiposhak yog	30 ml	Vyana Udana kaala	Milk
4	Panchatikta ghrut	1 tsp	Apana kaala	Koshna jal
5	Raktashodhak kashaya	20 ml	Vyana Udana kaala	Koshna jal

Table no. 4: Shodhana chikitsa:

SrNo	Procedure	Dose	No of Days
1	Snehan kati te ubhaya	20 mins	25 days
Nationa	pad o with a Bala ashwagandhadi tail.	t Ayurveda	& Yoga
2	Panchatikta ksheer	60 ml	25 days
	basti		
3	Shashtishali pind swed	30 mins	25 days
4	Jaloukavacharan	Alternate days at hip joint	10 days

DISCUSSION

The main intentions of treatment were conservative management and improved patient quality of life. The patient's main complaint was bilateral hip pain. This indicates that Vata Dosha is involved in Asthivaha Strotas. AVN is caused by a lack of blood supply to certain parts of the bone. Vayu's Marga Avarodha reduces the blood supply to the thigh head. The increase in Vata Dosha has finally led to Asthi Dhatu Kshaya. Therefore, the concept of VAT calculations and Rakta Prasadaka and Astiposhaka Jalaukavacharana is displayed for vascular disease. Vata.acharya Charaka mentioned Athhi Kshya Panchakarma Chikitsa, particularly Basi, for treatment of Ksheera, Gritha, and Tikta Dvyas⁽⁵⁾. It's Jevaniya and Brimhaniya. Therefore, Vayu's Marga Avarodha, which leads to vascular deflection, can be overcome by managing Basti⁽⁶⁾. Along with Snehahana, Kati Basti, Shashtishali Pinda Sweda, Jaloukavacharan, and internal medicine were planned for this patient.

One episode explained:

Mode of action of Panchakarma Chikitsa

1) Snehana:

Abhyanga: As a result of the mechanical pressure imparted to the muscles during this procedure, which raises arterial pressure and muscular temperature through rubbing, taila was applied to the body and massage was performed. Taila's ayurvedic qualities of Snigdha, Guru, and Ushna are completely at odds with vata dosha. Therefore, taila aids in lowering the vitiated Vata Dosha⁽⁷⁾. Balashwagandhadi tail, which mostly contains Bala, ashwagandha, erand, shatavari, and til tail, which primarily acts as balya, was used for this Abhyanga.

2) Swedana:

Shashtishali Pinda Sweda: It contains lipid and is a kind of Snigdha Sweda. Drugs Pottali are given to body parts in this sort of Swedana. The warmth causes the capillaries there to expand, allowing the drug to be absorbed locally. It then enters the Dhamani and appears to reach the strotas, resulting in santarpana⁽⁸⁾. Here, vikruti of Asthi, Snayu, is detected due to bone degradation, and the bone's blood flow is diminished. Thus, it was provided as a Santarpana aspect.

3) Basti:

Panchtikta kshir basti: Tikta Kshir Basti was mentioned by Acharya Charaka in Asthi Pradoshajanya Vikara. Specific components have not been specified. Thus, Asthishrunkhala has been chosen as Kalka dravya, while Ashwagandha and Shatavari have Tikta Rasa and Rasayana qualities. Asthishrunkhala is a vata kapha shamak that aids in the healing process of bones, while Shatavari has the properties of Vata, Pitta, and Rakta Shamaka and naturally contains phytoestrogen that increases the density of bone minerals. All of these medications have sedative, anti-inflammatory, anti-aging, and bone-healing qualities⁽⁹⁾. Therefore, it was discovered to be highly effective in degenerating Asthi, which results in AVN.

4) Jaloukavacharan:

A novel Ayurvedic medication called Jaloukavacharan presents a viable strategy for AVN management. Jaloukavacharan aids in AVN patients' symptom relief and healing by

eliminating stagnant blood, lowering inflammation, and encouraging angiogenesis and bone renewal. (10)

Mode of action of Shaman Chikitsa

- 1) **Trayodashang Guggul:** Of the 14 constituents of trayodashang guggul, the majority of the medications contain the properties of tikta, kashaya, madhura rasa, ushna veerya, katu vipak, and vata hara. It functions as rasayana, balya, and Vednasthapaka.⁽¹¹⁾
- **2) Panchatikta Ghrita:** This traditional type of ghee is made by blending five herbs together, which helps to purify the blood, reduce infection, and balance the vata, pitta, and kapha. Its magical components have deep-seated anti-inflammatory, antitoxin, and antipruritic effects. (12)
- **3) Panchatikta ghrut guggul:** It is a Guggul kalpa with a synergistic combination of Tiktarasatmaka dravyas such as Nimba, Guduchi, Vasa, Patol, and Kantakari (Panchatikta) acting as Raktashodhak vedanashamaka.⁽¹³⁾
- 4) Asthiposhak Yog: It is a classic Ayurvedic formula used to support bone strength, density, and health. Hadjod, Arjuna, Praval Pishti, Mukta Pishti, and Guggulu are among the herbs and minerals that are commonly included in Asthiposhak Yog. The formulation's anti-inflammatory qualities aid in promoting bone repair and lowering inflammation. Osteoporosis, osteopenia, fractures, and bone weakening are among the ailments that are commonly treated with Asthiposhak yoga. To boost its potential, it is eaten with milk.
- 5) Raktashodhak Kashaya: This traditional Ayurvedic herbal infusion is used to cure a variety of skin and blood-related conditions as well as to cleanse and purify the blood. Manjistha, Neem, Guduchi, Kutki, and Triphala are among the herbs that are commonly used in Raktashodhak Kashaya.

results in jeevani Darshan

Condition of patient improved gradually along with the course of treatment.

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Sign and symptoms	BT	AT (25 days)
Pain	VAS –left 8/10	Left 2/10
	Right 7/10	Right 1/10
Difficulty in Walking	Present	Normal
SLRT (For lt side)	Active – 50 degree (Painful)	Active – 70 degree (
	Passive- 70 degree (Painful)	Painless)
		Passive- 80 degree (
		Painless)

SLRT (For Rt side)	Active – 60 degree (Painful)	Active – 80	degree (
	Passive- 80 degree (Painful)	Painless)	
		Passive- 90	degree (
		Painless)	

CONCLUSION

This case study demonstrates how well Ayurvedic therapy methods work for managing avascular necrosis. In which symptoms like pain and trouble walking are effectively relieved by Tiktakshir Basti, Jaloukavacharan, Shastishali pind Sweda, and Shaman therapy. One case served as the basis for this investigation. Therefore, more research with a larger sample size is needed to determine the better outcomes. If these drugs are used consistently, MRI results may show reversible alterations.

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