

Management of Avascular Necrosis through Ayurveda - A Case Study

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ABSTRACT

Background: This disorder, known as avascular necrosis (AVN), is becoming more common in musculoskeletal clinics. Osteonecrosis is a condition in which bone tissue dies as a result of an injury or obstruction in the blood supply. This is the most frequent kind of necrosis, occurring from a loss of feeding due to an injury to the and Majja Kshaya (the loss of bone tissue), play key roles in the pathophysiology of AVN.

Aim: For the evaluation of the effectiveness of Panchatikta Kshira Basti (enema produced from Tikta Dravya like Nimba (*Azadirachta indica*), Patola (*Trichosanthes dioica*), Vyagri (*Solanum surattense*), Guduchi (*Tinospora cordifolia*), and Vasa (*Adhatoda vasica*) in the treatment of avascular necrosis. In addition to relieving pain, the therapy aims to preserve structure and function.

Materials & Methods: As a result of this case study, we are reporting on a 23-year-old patient with bilateral hip discomfort and trouble performing everyday tasks like as walking, sitting, and squatting, at the Panchakarma OPD at the All India Institute of Ayurveda New Delhi Panchakarma Ophthalmology. Dashmooladi Niruha Basti, Panchatikta After Basti and a follow-up period of 15 days, an evaluation was conducted.

Observations: Pain, soreness, weakness, and gait improvement were all completely alleviated as a result of the treatments.

Conclusion: According to the findings, Panchatikta Kshira Basti is a viable therapeutic option for patients with Avascular Necrosis.

Keywords: An Ayurvedic treatment for Asthi Majja Kshaya, or Avascular Necrosis.

Introduction

A There is vascular necrosis (AVN) in young adults, where 60 per cent of the cases are bilateral and osteonecrosis (dead bone). An injury or blockage in the blood veins feeding the bone tissue is the most common cause, and it affects around 16,000 Indians each year. The most prevalent form of bone necrosis is AVN of

the femoral head. In general, there are two categories to choose from: Traumatic brain injury Ailment that has no known cause. The arteries that feed the femoral head are very small, making them vulnerable to damage when the femoral neck is dislocated or fractured. This results in necrosis of the femoral head as a consequence of a lack of nutrients. In the

beginning, there may be no symptoms, but later on, mild to severe discomfort and a change in stride are seen. Between the ages of 20 and 40, it affects one in every ten people. There are several chronic and untreatable AVN illnesses that Ayurveda has been able to treat. [2] When

1	Nadi (pulse)	80/Minute, Regular
2	Mutra (urine)	Samyaka
3	Mala (stool)	Samyaka
4	Jivha (tongue)	Nirama
5	Shabda (sound)	Spashta
6	Sparsha (touch)	Samsheetoshna
7	Drik (eye)	Spashta
8	Aakriti (built)	Krusha

it comes to disorders that aren't covered in Ayurveda books, Ayurvedic Chikitsa concepts must be implemented clinically (unmentioned disease). Additionally, Panchakarma (five therapeutic procedures) treatment's efficacy was evaluated. Modern research recommends unpleasant surgical methods to treat AVN of the femoral head. A case of AVN was treated using this idea, and the treatment's results are discussed in the following paragraphs..

Materials & Methods

Case Report: Patients at the All India Institute of Ayurveda New Delhi, a 23-year-old male with AVN (dated 16/02/2017 OPD NO.154670) who had complained of pain in the bilateral hip region for 1.5 years and difficulty performing daily activities such as walking, sitting, and squatting came to the institute with these complaints. Cold weather, stomach discomfort, and a supine position were all aggravating variables. Warm meal and warm weather were easing influences..

Past History: The patient said he was well for about a year and a half before he started experiencing discomfort in his left hip joint. The discomfort persisted throughout the day and

worsened at night. An orthopaedic surgeon diagnosed the patient with bilateral femoral head AVN using MRI and advocated surgery, but the patient was hesitant.

and he approached the present treatment

1	Prakruti (Constitution of the person)	Vatapradhan Pitta, Rajas
2	Sara (quality of tissue)	Madhyam (average):Ras, Rakta, Mansa
3	Samhanana (body built up)	Madhayama (average)
4	Pramana (antropometric measurement)	Wt.40kg Ht.5feet
5	Satmya (adatability)	Madhyama (average)
6	Satva (mental strength)	Uttama (good)
7	Aaharashakti (food intake and digestion capacity)	Abhyavaharan : (average) Jaran : 5-6 hrs.
8	Vyayamashakti (exercise capacity)	Avara (poor)
9	Vaya (age)	Yuvavastha (adult)
10	Desha (habitat)	Sadharana

facility for conservative and alternative treatment

Patient had no H\o alcohol consumption or any trauma or accidental injury.

Examination of Patient:

An Ayurvedic and contemporary medical team examined the patient thoroughly, with the results summarised in tables 1 through 2.

Table no. 1: Aaturbala Pramana Pariksha examination of the strength of the patient):

Table no. 2: Asthavidha Pariksha (Eight fold examination):

*Dosha: Vata

There are many other names for him, but he goes by the name Pakvashayo *Adhistan:

Pakvashayo *Dushyo: Raktsiru, Siru, Snayu, Asthi

When the blood flow to the head of the femur is compromised, it produces weakness in the neck, head, and hip joint in Samprapti (pathology). Degenerative changes in the hip joint are brought on by overindulgence in foods and practises that increase Vata, resulting in acute discomfort and difficulties moving the hip joint.

Investigation:

1. On the most recent MRI (done on October 3, 2016), there is a moderate effusion in the left hip joint, as well as Grade III avascular necrosis of the left femoral head. It is possible that the right femoral head has been damaged by avascular necrosis.

A negative result for HbsAg
Treatment Administered:

The patient received both pharmacological and procedural therapy.. Tables 3 and 4 provide the specifics.

Table no.3: details of medicine administered

Sr. no.	Drug	Dose	Anupana	Duratio
1	Dashmoola Kwatha	10 ml TDS	Luke warm water	3 weeks
2	Kaishore Guggulu	500 mg TDS	Luke warm water	3 weeks

3	Panchatikta Guggulu Ghrita	1 tsp BD	Luke warm water	3 weeks
4	Panchasakar Choorna	5 gm bed time	Luke warm water	3 weeks

Table no.4: Details of therapies administered

Sr no.	Treatment	Drug used
1	Sarvanga Abhyanga (full body massage)	Ksheerbala Taila
2	Bashpa Swedana (Full body fomentation)	Dashmoola Kwatha
3	Kaal Basti	Niruha Basti
		Content
		Madhu (Honey)
		Saindhava Lavana
		Panchatikta Guggulu Ghrita ^[4]
		Shatapushpa Kalka
	Dashmoola Kwatha	
	Goksheer (Cow's Milk)	

Table 5: Kaal Basti schedule administered in

Day	Basti	Dose (ml)	Time administration	Time of Bastipratyagamana (expulsion of enema material)	Symptoms/ Observations	Complications if any
1	A	60	11 am	2 pm	Stool frequency twice	None
2	A	60	11:15 am	2 pm	Stool frequency once	None
3	N	500	11 am	11:10 am	Bowel frequency once	None
4	A	60	11:30 am	2:15 pm	Bowel frequency once, lightness present	None
5	N	500	10:30 am	10:45 am	Bowel frequency once, lightness present	None
6	A	60	10:45 am	1:30 pm	Bowel frequency once, lightness present	None
7	N	500	11am	11:15 am	Bowel frequency once, Lightness present, Taste in food	None
8	A	60	11 am	3:20 pm	Bowel frequency once, Lightness present, Taste in food, <i>Vatanulomana</i>	None
9	N	500	11:15 am	11:20 am	Bowel frequency once, Lightness present, Taste in food, Improvement in digestion, <i>Vatanulomana</i>	None
10	A	60	11 am	3:30 pm	Bowel frequency once, Lightness present, Taste in food, <i>Vatanulomana</i>	None
11	N	500	11:30 am	11:35 am	Bowel frequency once, Lightness present, Taste in food,	None
12	A	60	10:30 am	2:40 pm	Bowel frequency once, Lightness present, Taste in food, <i>Vatanulomana</i>	None
13	N	500	10:30 am	10:40 am	Bowel frequency once, Lightness present, Taste in food	None
14	A	60	10:45 am	4:20 pm	Bowel frequency once, Lightness present, Taste in food	None
15	A	60	11 am	3:10 pm	Bowel frequency once, Lightness present, Taste in food	None
16	A	60	11 am	2:25 pm	Bowel frequency once, Lightness present, Taste in food	None

the patient

Observations

Table 6 shows post-treatment improvements in hip joint range of motion and pain as measured by the Vas Numerical Pain Distress Scale (Chart 1). After therapy, the range of motion and level of discomfort in the hip joint significantly improved

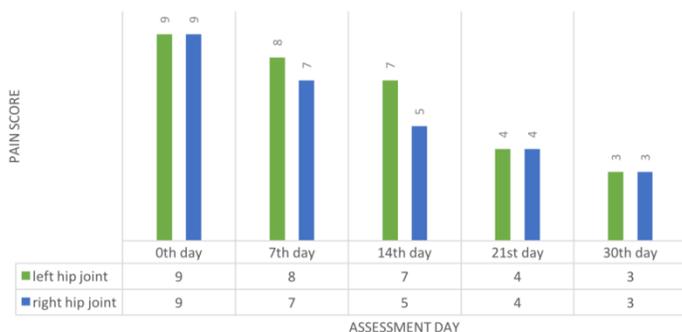
Table no.6: Observation of pre and post treatment changes in hip joint

S. No.	Sign and Symptoms	BT	AT	Normal Range
1	Flexion of Hip Joint	30°	90°	110° - 120°

2	Extension of Hip Joint	0°	10°	10° - 15°
3	Abduction of Hip Joint	20°	35°	30° - 50°
4	Adduction of Hip Joint	10°	20°	20° - 30°
5	Medial Rotation	10°	25°	30° - 40°
6	Lateral Rotation	20°	40°	40° - 60°

Chart no. 1: Vas Numerical Pain Distress Scale

HIP JOINT VAS SCORE



Discussion

There is no clear correlation between avascular necrosis and Ayurveda, however the clinical presentation suggests the dominance of Vata Dosh and Vikruti (vitiation) of Asthi Dhatu (Asthi Dhatu's vitiation) (bony tissue). Femoral necrosis may occur as a result of any Margavrodha (occlusion of blood vessels), and this necrosis is the primary cause of AVN. Dhatu is also angered by Margavrodha's actions. It is at this advanced stage when necrosis-induced Vata Dosha imbalance is leading Pitta and Kapha to become vitiating as well. Treatment for Vata, Pitta, Kapha, and Rakta doshas begins with Basti. [5] It is Tikta Dravye Sadhite Ksheera Asthikshayaja Vikara makes a particular mention of Basti (disorders caused by decrease of Asthi Dhatu). [6]

Probable mode of action of Panchatikta Ksheera Basti:

Vata Dosha may be controlled by the decoction produced in milk that has Madhura (sweet) and Snigdha (unctuous) characteristics, and the Sukshma Guna (minute properties) of Saindhva (rock salt) gets up to the micro channels of the body and helps open new blood flow to the bone tissue. This Basti's Tikta Dravyas include Tikta Rasa, Ushana Virya (hot potency), Madhura, and Katu Vipaka (pungent post-digestive taste), all of which promote proper Dhatvagni (metabolic stage) function and so boost the Asthi Dhatu's nourishment. It is said that Ghrita is the 'pacifier of Vata,' and that

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Madhura, 'Shita Virya' (cold potency). In this way, Vata is regulated, the metabolism of tissue is boosted, and the body's ageing process is slowed down. It has the capacity to accelerate the bioavailability of other medications because of its qualities of Sanskarasya Anuvartana [8]. As a result, it contributes to the Asthi Kshaya's Samprapti Vighatana (pathology breakdown). In Anuvasana Basti, which is mentioned in Vata and Rakta Vikara, Madhuyashti Taila was employed.

Role of internal medicine

To ease discomfort, patients were given Dashamool Kwatha (the decoction of 10 herbs), which is thought to have Tridosha (three humours) calming effects in general, as well as calming Vata in particular,[9]. In Vatarakta, where blood vessel blockage is the primary pathology, Kaishore Guggulu is the medicine of choice. [10] So, in this condition also it Perhaps improved blood flow to the femur's head. In the form of Basti, Tiktaka Ghrita with milk is recommended for the treatment of disorders of the bone, such as Asthi and Sandhi (joints), and this may have contributed to the bone's sustenance. To aid in the cleaning of the digestive tract, Panchasakar Choorna (powder of five sweeteners) is prescribed (normalising the movement of Vata).

Conclusion

According to this case study, Panchatikta Kshira Basti is a good treatment for avascular necrosis of the femoral neck when combined with other palliative medicines. Further studies are needed, however the evidence shows that Ayurveda may be quite helpful in the treatment of AVN when used in conjunction with an accurate diagnosis and the appropriate treatment regimen. In this instance, the recovery was encouraging and warranted documentation

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