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"AYURVEDIC APPROACH IN THE MANAGEMENT OF LUMBAR INTERVERTEBRAL DISC ANNULAR TEAR : A CASE STUDY"

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ABSTRACT:

An annular tear refers to a condition where the tough exterior of the spinal disc, known as the annulus fibrosus, develops a tear or rip. When an annular tear occurs, it can lead to localised pain, inflammation, and, in some cases, compression of nearby nerves. Treatment options range from conservative approaches such as rest, physical therapy, and medications like nonsteroidal anti-inflammatory drugs (NSAIDs), injections, depending on the severity of symptoms and the extent of the tear. In Ayurveda, an annular tear is conceptualised as Abhighatjanya Katigatvata. The present case study focusses on the management of an annular intervertebral tear in the lumbar disc using avurvedic principles. A 48-year-old female, suffering from an annular tear of lumbar intervertebral disc desiccation and bulge, was treated with Panchtikta Kshira Basti for 15 days. Simultaneously, kati basti, Shashtishali Pinda Sweda, Agnikarma, and internal medicines were also given. Relief was noticeable in all symptoms of patient, so here presented a single case Study.

KEY WORDS: Annular tear, Abhighata Janya Katigatvata, Panchatikta kshira Basti, Kati Basti, Shashtishali pinda Sweda, Agnikarma

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INTRODUCTION

The majority of a person's weight is carried by their neck and back, which are highly vulnerable to degeneration. Intervertebral discs are fibrocartilaginous structures that give shape to the vertebral column. Each intervertebral disc is surrounded by a tough, shock-absorbing layer known as the annulus (1). Annular tear incidence is common of age-related natural deterioration of the spine. An intervertebral disc annular tear refers to a condition where there is a tear or rupture in the outer fibrous ring (annulus fibrosus) of an intervertebral disc in the spine (1). These discs are located between each vertebra and act as cushions that absorb shock and allow for flexibility of the spine.

The annular tear can occur due to degeneration, trauma, or repetitive stress on the spine. When the annulus fibrosus tears, the inner jelly-like substance (NNucleus Pulposus) may protrude through the tear, potentially leading to disc herniation or bulging (2). This condition can cause localised pain in the affected area of the spine, and in some cases, pain may radiate to other parts of the body if nerve roots are affected.

Annular tears can be correlated in Ayurveda with Abhighatjanya Katigatwata. Abhighata (injury) may lead to Rasa Raktadi Dhatus and Vata dosha, which leads to vikruti in Asthi, Snayu, and Kandara and symptoms like pain, swelling, tingling sensation, etc. occur (1). For vitiated Vata Basti is the best treatment. For Asthipradoshaja, vyadhi tikta kshir basti is indicated (1).

Current treatment Opinion:

conservative measures such as rest, physical therapy, NSAIDs, selective nerve root block injections, epidural steroid injections, and surgery. These medications give immediate relief to pain, but they also cause side effects also. So people favoured Ayurveda more (3)

An Ayurvedic Approach : A cost effective Opinion

Efforts have been made in this case study to manage annular tears based on Abhighatjanya Katigatvata. Treatment protocol comprises Tikta Kshira Basti, Kati Basti, Shashtishali Pinda Sweda, Agnikarma, and internal medications ⁽³⁾.

CASE PRESENTATION :

A 48-year-old female patient approached Pakwasa Samanvaya Rugnalaya, Nagpur, on February 16, 2024, with complaints of back pain (lumbar region) to the right leg, difficulty walking, tingling sensations, loss of appetite, and constipation.

CASE HISTORY :

A female patient aged 48 years was said to be healthy till 16th January 2024. During farming

work, she lifted heavy objects, which caused severe back pain (lumbar region). Then she consulted an orthopaedic doctor, and an MRI was suggested. MRI findings showed that she had a posterior annular tear in L4-5 intervertebral disc desiccation and disc bulge without compression of the spinal canal. Patient had taken NSAIDs and analgesic medicines but no relief in patient complaints. As per the patient, she did not have any relief from the complaints. She came to the OPD of Pakwasa Samanvaya Rugnalaya later for further management. So she got admitted to our hospital for the treatment.

PAST HISTORY :

No H/o HTN, DM, BA, TSH disorders or any other illness.

No H/O Fall

GENERAL EXAMINATION :

- Gc : Mod , Afebrile
- BP: 110/70 mmhg
- PR : 70/min
- RR: 18/min
- Temp: 98.2 F
- Oedema: No
- Pallor : No
- Icterus : No

Clubbing : No



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RS : AE=BE-Clear

CVS: S1 S2 - Normal

CNS : Concious, Oriented.

P/A : Soft, Nt.

ASHTAVIDH PARIKSHAN :

Nadi :70/min Mala : Malavshtambha Mutra : Samyak Jivha : Saam Shabda: Spashta Sparsha: Samshitoshna Druk : Spashta Akriti : Madhyam

ON EXAMINATION :

SLRT (BT)	Rt. Leg	Lt. Leg
Active	40 degree (Painful)	90 degree (Painless)
Passive	60 degree (Painful)	90 degree (Painless)
SNDT	Rt. Leg	Lt. Leg
BT	Positive	Negative

VAS for Lumbosacral Joint (BT)	9/10	

SPECIFIC INVESTIGATION :

MRI LUMBAR SPINE (17/01/2024)

Impression:

L4-5 level disc desiccation **with posterior annular tear, posterior paracentral disc bulge** in the background of diffuse disc bulge identing over anterior thecal sac without compression of spinal canal. It shows bilateral neural foramina causing their narrowing and abutting bilateral traversing and exiting nerve roots.

MATERIALS AND METHODS :

Centre of Study : Pakwasa Samanyaya Rugnalaya IPD, Nagpur.

Simple Random Single case study.

TREATMENT PROTOCOL :

Treatment was planned considering Abhighata Janya Katigata vata , Grudhrasi , Vata Dushti and Asthidhatu Dushti.

Table no. 1: Shaman Treatment Schedule

Sr. No. N	Name of Medicine U	Dose of	Kalaurve	Anupana Y	Duration
1	Yograj Guggul	250 mg	Vyana	Koshna jala	25 days
			Udana		
			kaala		
2	Rasnasaptak Kwath	15 ml	Vyana	Koshna jala	25 days
			Udana		
			kaala		
3	Agnitundi Vati	125 mg	Vyana	Koshna jala	15 days
			Udana		
			kaala		
4	Dashmool Kwath	30 ml	Apaan kaal	-	25 days
5	Gandharvahastyadi	20 ml	Apaan kaal	-	25 days
	Kashaya				
6	Ashwaghandha +	40 ml	Vyana	-	25 days
	Shatavari Churna	(2 gm	Udana		
	Kshirpaka	each	kaala		
		churna)			

Sr. No	Procedure	Dose	No. of Days/times
1	Abhyanga with	-	25days
	Sahacharadi Taila		
2	Shashtishali Pind	-	25days
	Swed		
3	Panchatikta kshir	60ml	15 days
	basti		
4	Katibasti with	50-60ml	25 days
	Murivenna taila		
5	Agnikarma at L4-5	-	5 times on A/D
	level (5 times on		
	A/D)		

Table No. 2 : Shodhana Treatment

RESULTS :

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

Table No.4 : Assessement of Results

Sign and symptoms	BT	AT (25 days)	
Pain	VAS – 9/10	1/10	
Tingling Sensation	Present	Normal	
Difficulty in Walking	Present	Normal	
SLRT (For Rt side)	Active – 40 degree	Active – 80 degree	
•	(Painful)	(Painless)	
Santer	Passive- 60 degree (Painful)	Passive – 90 degree	
		(Painless)	
SNDT	Positive	Negative	
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DISCUSSION

Annular tears can be correlated in Ayurveda with Abhighatjanya Katigatwata. Abhighata (injury) may lead to Rasa Raktadi Dhatus and Vata dosha, which leads to vikruti in Asthi, Snayu, and Kandara. For vitiated Vata Basti is the best treatment (1). Acharya Charka has mentioned Tikta Kshira Basti in Asthipradoshjanya Vikara(4), along with that snehana, Kati basti, Shashtishali pinda sweda, Agnikarma, and internal medications planned for this patient. The probable mechanism of action of the planned treatment protocol can be explained as follows:

Mode of action of Panchakarma Chikitsa :

1) Snehana:

Abhyanga : In this process, taila was applied to the body, and massage was done due to this mechanical pressure exerted on muscles, which helps to increase arterial pressure as well as

muscle temperature from rubbing. Ayurvedic properties of taila are Snigdha, Guru, and Ushna, which are totally opposite to vata dosha. So, taila helps to reduce the vitiated Vata Dosha(5). Here Abhyanga was done with Sahacharadi taila, which has the indication of Krichra Anilamaya and was practically found to be very effective in radicular pain (6).

2) Swedana:

Shashtishali Pinda Sweda : It is a type of Snigdha Sweda that has lipid in it. In this Swedana type, drugs Pottali are applied to body parts; capillaries at that site get dilated due to warmth and allow the absorption of drugs locally and get absorbed into the Dhamani and apparently reach the strotas, leading to the santarpana (7). Here, due to Abhighata (injury), Vikruti of Asthi,Snayu, and Kandara was found. So, as a Santarpana aspect it was given.

3) Basti:

Panchtikta kshir basti: Acharya Charaka has mentioned Tikta Kshir Basti in Asthi Pradoshajanya Vikara. They haven't mentioned specific ingredients. So, Ashwagandha and Shatavari possess Tikta Rasa and Rasayana properties, and along with that, Asthishrunkhala has been selected as Kalka dravya. Shatavari has vata, pitta, and rakta shamaka properties and naturally contains formed phytoestrogens that increase bone mineral density, and Asthishrunkhala is vata kapha shamak and helps to bone healing process. All these medicines have bone-healing properties along with anti-inflammatory, anti-ageing, and sedative roperties (4). So it was found to be very effective in degenerative changes of Asthi, which leads to annular tears.

⁴⁾ Katibasti: **Sanjeevani Darshan**

In this process, warm taila is poured on the lumbar region in a circular ring. According to Ayurveda, affected parts of the skin absorb taila through Sushma, which is situated in lomakoopa, and pachan is done by Bhrajak Pitta, located in the skin, which helps to reduce pain and stiffness. According to modern science, due to poured warm tail, blood flow increases on the affected site, so that part gets more nutrition and strengthens muscles and nerves. It relaxes muscles and relieves pain (8). Here Murivenna taila is used; it is well known for reducing pain and faster healing (4). So, with Murivenna taila, Katibasti becomes very useful in this type of condition.

5) Agnikarma :

It is a thermal parasurgical procedure to subside all types of pain. In Ayurveda, red hot shalaka was used, which is Ushnagunatmaka, and vata is opposite to that. So due to that, if vata was reduced, pain would also subside. According to modern science, blood supply increased and more nutrition was given to the affected part, which helped with pain reduction (5). So, for local pain reduction, this parasurgical procedure was found to be effective.

Mode of action of Shaman Chikitsa :

1. Yograj Guggul:

Yograj guggul has a total of 29 ingredients; among these, most of the drugs have tikta, kashaya, katu rasa, ushna veerya, ushna-Ruksha guna, and Vata-Kapha hara. It acts as Vednasthapaka,nadibalya⁽⁶⁾.

2. Rasnasaptak Kwath :

This polyherbal decoction contains a total main ingredients. These herbs are known for their anti-inflammatory, anti-arthritic, and analgesic activity. Properties of these drugs are Katu rasa, Katu Vipaka, and Ushna Veerya. This decree is used for aam pachana, vata shamaka, and mridu virechana (9).

3. Agnitundi Vati:

Agnitundi vati has properties like Katu, Kashaya Rasa, Ushna Veerya, and Katu vipaka. It balances Kapha and improves Pitta. It corrects digestive power and induces Pachana at the Dhatugata level. It helps to treat indigestion (9).

4. Dashmool Kwath:

This polyherbal decoction contains a total 10 ingredients. It is used for Tridoshshamaka and Shotahara (4).

5. Gandharvahastyadi Kashaya :

It has Malashodhana, Vata Kaphahara, and Deepan Pachan properties. Chitrak and Sunthi have Ushna Veerya, Stotoshodhana, and Deepan Pachan action. Haritaki, Punarnava, and Chiravilwa hepls in Vatanulomana⁽⁶⁾.

6. Ashwadandha and Shatavari Churna :

These drugs are explained in the Balya gana of Charak Samhita. These drugs intake increased strength of body. Ashwagandha is Ushna Gunatmaka, which helps to reduce vata, and Shatavari helps to reduce pain (10).

CONCLUSION

This case study reveals the effectiveness of Ayurveda treatment modalities in the management of lumbar intervertebral disc desiccation with posterior annular tear. In which Kati basti, Tiktakshir basti, Agnikarma, Shashtishali pind Sweda, and Shaman treatment is effective to relieve symptoms like pain, tingling sensation, difficulty in walking occurring due to annular tear, and posterior paracentral disc bulge without compression of spinal canal.

If these medications are continued, reversible changes may be found in an MRI.

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