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PRE-EMINENCE OF LEKHANA VASTI IN MANAGING OBESITY INDUCED OSTEOARTHRITIS – A CASE REPORT

Ayurveda

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ABSTRACT

Background – Obesity is the key risk factor for osteoarthritis (OA), primarily due to excess joint load causing cartilage damage. Other factors include genetics, age, sex, and mechanical stress. Obesity and metabolic syndrome raise pro-inflammatory cytokines and adipokines, influencing cartilage with both protective and destructive effects. **Materials and Methods –** A 59-year-old male patient has come to our college OPD with pain in both knee joints for the past 2 years along with pain in shoulder joint for 2 months. After thorough systemic and joint examination and assessment scales like WOMAC, he was diagnosed with Obesity induced Osteoarthritis which can be established parallelly in the lines of Sandhigata Vata and treatment protocol was tailor made for the patient condition. **Results and Discussion –** The patient had significant relief in the symptoms. His WOMAC score was reduced from 65 to 33 showing significant improvement in the condition of the patient. He also has dropped 5kgs weight in the span of 14 days of the treatment with no strict diet and exercise. **Conclusion –** According to Ayurveda, health is defined as the balanced state of the Doshas, and maintaining this balance is essential. To achieve it, Ayurveda outlines various guiding principles. Obesity is considered a disorder that can predispose individuals to serious conditions such as heart disease, diabetes, and metabolic syndrome etc., This case has proved that Ayurvedic treatment can improve the physical health of a person, further reduce the risk of communicable diseases and also improve the quality of life.

KEYWORDS

Obesity, Lekhana Vasti, Osteoarthritis, OA, Ayurvedic Treatment, Holistic Approach.

INTRODUCTION

1. The Osteoarthritis Research Society International (OARSI) defines osteoarthritis (OA) as a joint disorder caused by cellular stress and extracellular matrix (ECM) damage triggered by micro- or macro-injuries[1]. This activates faulty repair responses via pro-inflammatory pathways of the innate immune system. Early changes often involve altered metabolism, progressing to structural and functional issues such as osteophyte growth, cartilage loss, bone remodelling, joint inflammation, and impaired mobility. Osteoarthritis (OA) is the most common form of arthritis, affecting millions worldwide and greatly impacting quality of life. By 2020, over 595 million people were living with OA, with 41 million new cases reported[2]. Both obesity and OA are major health issues in modern society. Excess body weight increases the risk of OA in weight-bearing joints like the knees as well as in non-weight-bearing joints such as the hands. People with obesity have nearly double the lifetime risk of developing symptomatic OA compared to those with a BMI below 25 kg/msquare[3]. While OA was once considered a non-inflammatory condition, recent studies emphasize the role of inflammation in its development, showing that inflammation is not limited to rheumatoid arthritis or other classic inflammatory joint disorders[4].

In Ayurveda, this can be correlated to Sandhigata Vata where the symptoms are Vatapurnadruti Sparsha (Crepitus in the joints), Shotha (Inflammation), Prasarana Akunchanayo Sa Vedana (Painful and restricted range of movements).

2. Case Report – 59-year-old male visited our hospital with pain in both knee joints (right more than left) persisting for 2 years, which had worsened over the past 8 months, accompanied by mild swelling and crepitus. He also reported right shoulder pain for 8 months, numbness in the left foot for 2 months, and recent onset of low back pain and stiffness that limited daily activities. The patient weighed 96 kg with a BMI of 31.3 kg/m² and had a history of hypertension since 2002, managed with medication. For his joint complaints, initially, he was managed by contemporary medical care and was prescribed oral medication and physiotherapy, which provided only temporary relief. As symptoms recurred, he was advised knee replacement surgery in 2021, but it was delayed due to the COVID pandemic. The restricted mobility led to low self-esteem, doubts about his ability to manage daily tasks, and feelings of being a burden on his family, which affected his emotional well-being. He therefore approached us seeking further treatment and long-term relief.

Personal History –
1. Diet – Mixed
2. Appetite – Good
3. Bowel – Regular
4. Micturition – Regular
5. Sleep – Disturbed

On Examination – His Blood Pressure was 130/90mmHg, Pulse was of 72 beats/minute, Respiratory rate was 17 cycles/minute, SpO2 of 98%, Afebrile (36.8°C) and has Pedal Edema on both lower limbs.

Systemic Examination –
1. Cardiovascular System – S1, S2 heard, no murmurs.
2. Respiratory System – NVBS, no breathlessness.
3. GI System – No organomegaly.
4. Central Nervous System – Central Nervous System and Higher Motor Functions intact.
5. Musculoskeletal System – Affected.

Ashtavidha Pareeksha –
1. Nadi – Vata – Pittaja
2. Mutra – Prakrita
3. Mala – Prakrita
4. Jihwa – Alipta
5. Shabda – Spashta
6. Sparsha – Ushna
7. Drik – Prakrita
8. Akriti – Madhyama

Dashavidha Pareeksha –
1. Prakruti – Pitta – Kaphaja
2. Vikruti – Vata – Kaphaja
3. Sara – Meda, Ashti
4. Samhanana – Pravara
5. Pramanam – Pravara
6. Satmyam – Vyamisra
7. Satvam – Madhyama
8. Vayah– Madhyama

9. Ahara Shakti – Pravara
10. Vyayama Shakti– Avara

Table– 1 Pathological Blood Parameters (20/07/2023)

FBS	115 mg/dl
PPBS	170 mg/dl
Blood Urea	19.2 mg/dl
Serum Creatinine	0.09 mg/dl
Serum Uric Acid	4.7 mg/dl
Hb	14.2 mg/dl

Table – 2 Internal Medications

Sl.No	Dravya (Medication)	Anupana (Dosage)	Aushadha Sevana Kala (Time of Administration)
1.	Sahacharadi Kashayam	10ml each Kashayam with 40ml warm water twice daily.	On empty stomach.
2	Prasaranyadi Kashayam		
3	Trayodashanga Guggulu	2 – 0 – 2	With Kashayam
4	Ksheerabala Taila Capsules	1 – 0 – 1	After food
5	Sallaki XT	1 – 1 – 1	After food

Table – 3 External Procedures

Dates	Procedures
18/07/23	• Udwartanam with Kolakulatthadi Churnam
19/07/23 to 21/07/23	• Udwartanam with Kolakulatthadi Churnam • Nasya with Prasaranyadi Tailam 2 drops in each nostril • Jatamayadi Upanaha Lepam on both knees.
22/07/23 to 24/07/23	• Abhyanga with Mahanarayana Tailam • Patra Pinda Sweda • Nasya with Prasaranyadi Tailam – 2 drops in each nostril • Jatamayadi Upanaha lepam on both knees.
25/07/23	• Abhyanga with Mahanarayana Taila • Bashpa Sweda • Sadyovirechana with Gandharvahastadi Eranda Taila – 40ml, Patient had 4 vegas.
26/07/23 to 1/08/23	• Abhyanga with Mahanarayana Taila • Bashpa Sweda • Yoga Vasti – (5 Lekhana Vasti + 3 Sneha Vasti with Mahamasha Taila 200ml) • Nasya with Prasaranyadi Taila 2 drops in each nostril • Jatamayadi Upanaha Lepam.

- Lekhana Vasti Ingredients –

1. Saindhava – 10gm
2. Madhu – 100ml
3. Shatapushpa Kalka – 30gm
4. Mahamasha Taila – 100ml
5. Gomutra (Prativapa Dravya)– 100ml
6. Triphala Kashaya – 200ml

- Sneha Vasti with Mahamasha Taila – 200ml

3. RESULTS

Patient felt reduction of stiffness of the body, Laghutva of the body (lightness of the body), relaxed, increased appetite, improved quality of sleep, and reduced symptoms.

Table- 4 Observations Before and After Treatment

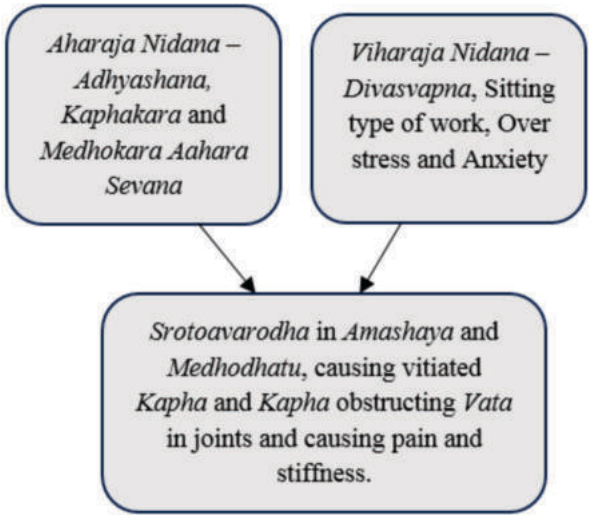
Examination	Before treatment		After treatment	
Weight	96kg		91kg	
Pedal Edema	Present in both lower limbs		Pedal Edema Reduced	
WOMAC Score5	65/96		33/96	
Neck Extension	Mildly Painful		Pain Reduced	
Neck Rotation	Painful while rotating towards Right side		Pain reduced and Increased Range of Motion.	
Crepitus in both knee joints	+++ (R)	++ (L)	+(R)	+ (L)
Swelling in knee joints	++ (R)	+ (L)	- (R)	- (L)
Apley's Back Scratch Test	+ (R)	- (L)	- (R)	- (L)
Painful Arc Test	+ (R)	- (L)	- (R)	- (L)

4. DISCUSSION

Nidana –

- Aahara – The patient had a habit of having more of Madhura, Amla, Lavana Aahara and also has a habit of Adhyashana (overeating) like snacking between meals etc.,
- Vihara – He also has a habit of Divasvapna. Nature of work – Long hours of sitting.
- Lakshana – Pain in the both the knee joints (R>L), Right Shoulder pain and numbness in the foot.

Samprapti –



Flowchart 1: Samprapti of Sthoulya Janya Sandhigata Vata.

Samprapti Ghataka –

Dosha – Vata, Kapha
Dushya – Rasa, Meda, Asthi
Adhisthana – Sarva Sandhi
Srotas – Rasavaha, Medovaha, Asthivaha
Srotodushti – Sanga, Vimarga Gamana
Agni – Teekshna Jatharagni, Medhodhatvagni Mandya
Ama – Dhatvagni Mandya Janya Ama
Vyadhi Sambhava – Naveena – Mridu; Jeerna – Daruna
Rogamarga – Madhyama Rogamarga

Probable Mode of Action of Udwartanam[6]: Udwartanam, is described as "Kaphaharam, Medasa Praveelayanam," reduces Kapha and Medas. As a Rukshana therapy, it clears Srotas and strengthens joints and muscles. Kolakulatthadi Churna[7], containing Kola, Kulattha, Suradaru, Rasna, etc., is Kapha-hara which promotes Lekhana, Rukshana, and relief from stiffness, inflammation, and pain.

Probable Mode of Action of Nasya[8]: Nasya was performed using Prasaranyadi Taila[9], a formulation primarily intended to pacify Vata. In this therapy, medications are administered through the nasal passage, facilitating effective absorption into the brain. The procedure not only alleviates stress and anxiety but also promotes strength and improves cognitive abilities.

Probable Mode of Action of Upanaha Lepa: In this procedure, a paste of Jatamayadi Churna[10] mixed with Dhanyamla is applied to the affected joints, bandaged, and kept overnight. It induces Swedana, reducing swelling, relieving pain, easing burning sensation, and improving mobility through its Vata-Pitta balancing and Vedanahara actions.

Probable Mode of Action of Sadyovirechana: Sadyovirechanam with Gandharvahastadi Eranda Taila[11] was given as a Purvakarma for Lekhana Vasti as a mild purificatory procedure. It also helps in Vatanulomana and ensures in better absorption of Vasti ingredients.

Probable Mode of Action of Lekhana Vasti: Acharya Susruta describes Lekhana Vasti, a type of Niruha Vasti, for Medhovikara and Sthaulya. Its formulation includes:

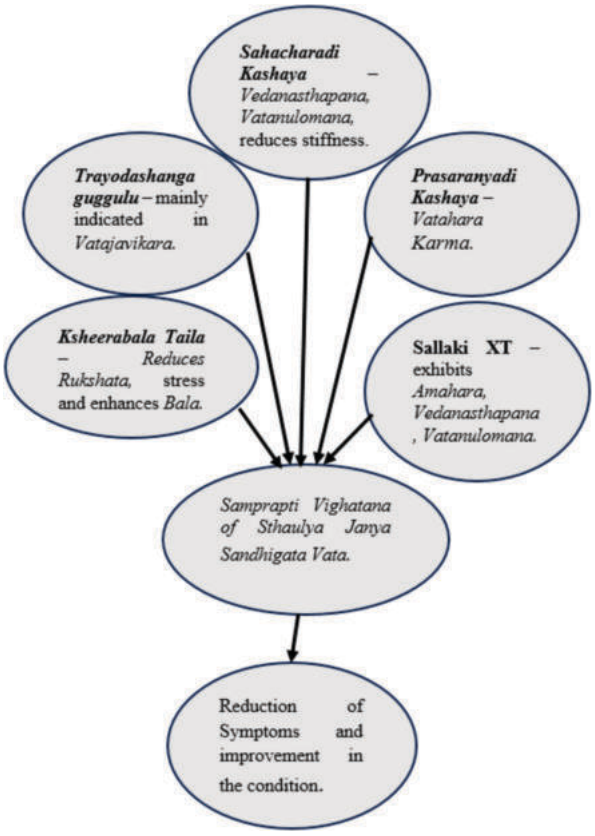
- **Saindhava –** Clears Srotorodha by facilitating Dosha Paka.
- **Madhu –** Ensures homogeneity and enhances absorption.
- **Shatapushpa Churna –** Base for absorption and Doshaharana.

- **Gomutra –** Kaphavatahara, Teekshna, Ushna; promotes Lekhana of Kapha and Ama.
- **Mahamasha Taila –** Prevents Vata vitiation, removes obstructions, aids elimination of Mala.
- **Triphala Kashaya –** Provides Lekhana, Vatanulomana, and Dosha-Dhatu elimination.

Vasti balances all five Vata types by acting on its main site, the Pakvasaya, and regulating Samana Vayu. In Sthaulya, obstructed Vata causes excess hunger, overeating, and preference for heavy foods, worsening the condition. Vasti breaks this cycle via the gut–brain axis, with its Rasa, Guna, Veerya, and Vipaka acting at the cellular level. Lekhana Vasti further clears obstructions, regulates Vata, and restores Dosha–Dhatu balance.

5. CONCLUSION

Ayurveda states that "Dosha Samyam Arogata," meaning health is achieved through an equilibrium state of Dosha. It emphasizes maintaining this balance through specific principles. In Obesity-induced OA, aggravated Kapha and Vata cause significant physical and mental distress, impacting daily life and social well-being. The personalized Ayurvedic treatment provided notable pain relief and improved mobility, boosting the patient's confidence, reducing distress, and enhancing overall quality of his physical, mental and social life.



Flowchart 2: Mode of Action of Treatment Protocol.

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