

Addressing Early Degeneration and Disease Complexity: Ayurvedic Insights on the Management of Young Osteoarthritis - A Case Report

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abstract: ***Introduction:** Young-onset osteoarthritis (OA) is a progressive degenerative disease that affects individuals under 45 years of age, often due to mechanical stress, metabolic imbalances, or hormonal fluctuations. Studies suggest that 5–10% of all OA cases occur in individuals under 45 years. Incidence is higher in athletes, individuals with previous joint injuries and metabolic disorders. Women, particularly during perimenopause, are at higher risk due to hormonal changes affecting the cartilage. In Ayurveda, Young OA can be seen under the lens of Sandhigataavata. **Methods:** A 43-year-old female patient presented with bilateral knee joint pain, more severe in the right, in the last four months, associated with morning stiffness lasting over 15 minutes. Patient also had a history of longstanding varicose veins and a history of recurrent Upper Respiratory Tract Infection [URTI]. Previously patient was under conventional treatments and physiotherapy and it provided minimal relief. Hence for seeking further management, she approached the OPD of Kayachikitsa department at Sri Jayendra Saraswathi Ayurveda Hospital, Chennai. As the first line of treatment, Udwarthanam and Lepam were administered, followed by Sadhyo Virechana, Abhyangam, Jambira Pinda Sweda, and Lekhana Vasti. **Result:** The assessment was done on the basis of signs, symptoms and scales proving clinical significance with remarkable reduction in knee joint pain, varicose veins and respiratory tract infection. **Discussion and Conclusion:** Initially, the internal medications focused on Deepana and Pachana and addressing the URTI. After seven days, the Kashayam was modified to specifically target Janusandhi Vata and Siraja Granthi Lakshanas. For external therapies, the treatment began with Rukshana using Udwarthanam and Lepam, aiming at Ama Pachana. This was followed by Sadhyo Virechana to facilitate Srotoshodhana and to manage recurrent URTI. Abhyangam and Jambira Pinda Sweda were performed due to their Vatahara and Sthambhahara properties. Subsequently, Lekhana Vasti and Anuvastana Vasti were administered in a Yoga Vasti sequence, not only focusing on Srotoshodhana, Vedana Hara, and Vatahara properties to alleviate pain but also promoting weight reduction due to their Kaphamedohara properties. Therefore, this combined treatment had a significant clinical effect in this case report.*

Keywords: Young Arthritis, Sandhigataavata, Sirajagranti

1. Introduction

Young osteoarthritis (OA) refers to the early onset of degenerative joint disease in individuals under 45 years of age. Unlike traditional OA, which primarily results from aging and long-term wear and tear, young OA is often triggered by factors such as joint injuries (post-traumatic OA), genetic predisposition, obesity, joint malalignment, or excessive mechanical stress from sports or repetitive activities¹. The prevalence of young OA is increasing due to rising obesity rates, sports-related injuries, and sedentary lifestyles, with studies suggesting that around 5–10% of OA cases occur in individuals under 45 years². Perimenopausal stage contributes to OA due to decreased estrogen levels. Estrogen has protective effects on cartilage by reducing inflammation and promoting cartilage repair, but as levels drop, there is increased cartilage degradation and joint inflammation³. Young OA is not only influenced by mechanical stress but also exacerbated by metabolic factors such as obesity and hormonal changes. The pathophysiology of young OA involves the breakdown of articular cartilage due to mechanical stress and biochemical imbalances. Chondrocytes fail to maintain homeostasis, leading to increased production of pro-inflammatory cytokines (IL-1, TNF- α) and matrix-degrading enzymes (MMPs), which

accelerate cartilage degradation. Subchondral bone sclerosis, synovial inflammation, and osteophyte formation further contribute to joint stiffness, pain, and reduced mobility⁴. OA manifests with morning stiffness lasting less than 15 minutes, pain, swelling, tenderness, restricted range of movements, and as the disease progresses, it causes deformity of the affected joints⁵. X-rays are the gold standard for the diagnosis of OA, where loss of joint space, osteophytes, subchondral sclerosis, and subchondral cysts can be seen.

Obesity is a significant risk factor for the development of varicose veins due to increased pressure on the venous system, particularly in the lower limbs. Excess body weight increases the load on weight-bearing joints, accelerating cartilage degeneration and contributing to osteoarthritis, while also elevating venous pressure, leading to valve incompetence and varicose veins⁶. Additionally, obesity promotes a pro-inflammatory state, with adipokines and cytokines (such as TNF- α and IL-6) exacerbating joint degradation in OA and weakening vein walls, further worsening venous insufficiency. Poor circulation due to varicose veins can cause chronic swelling and tissue hypoxia, aggravating joint stiffness and pain, while reduced mobility from OA further impairs venous return, creating a cycle of worsening symptoms⁷. In conventional medicine the

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treatment for OA includes, initial conservative treatment with NSAIDs, topical treatments, nutraceuticals (chondroprotective agents), bracing of the joint, and intra-articular injections. Pain and functional impairment determine the need for the surgery. As an operative treatment, joint arthroplasty (knee replacement surgery) is the first choice. Other non-conservative treatments are arthroscopic lavage and debridement and cartilage repair techniques.

In Ayurveda, OA can be closely related to *Sandhigata vata*. It is one of the *Nanatmaja Vata Vyadhi*. The *Prakupita Vata* circulates through the *Srotas*, cause decrease in *Sleshaka Kapha* and *Asthi Dhathu Kshaya*. This gets *Sthana Samshraya* in the *Sandhis*, causing *Sandhi Shoolam*, *Prasarana Akunchana Vedana*, *Vata Purna Drutisparsha*, *Asthi Sosha*, and in later stages, *Sandhi Vikruthi*⁸. Due to obesity, the excessive *Medo Dhathu* obstructs the *Uttarothara Dhathus*. This *Ati Medas* causes the *Avarana* of *Vata*, leading to *Sandhivata*. The treatment in *Sandhivata* aims at reducing the vitiated *Vata* and increasing *Shleshaka Kapha* in joints to facilitate greater joint mobility. The *Chikitsa* for *Sandhivata* includes *Snehana*, *Swedana*, *Upanaha*, *Bandhana*, *Agnikarma*, and *Vasti Karma*; it is the *Ardhachikitsa* for *Vatavyadhi*. Similarly, varicose veins can be understood through the lens of *Siraja Granthi*. The *Nidanas* include *Abalasya Vyayamajaate*, *Padatte Sahasaambho Avagahana*, *Shrama*, *Bharavahana*, *Adhvagamana*, and *Ati Guru Manda Hima Snigdha Ahara*⁹. These *Nidanas* not only aggravate *Vata* but also *Pitta*, *Rakta*, and *Kapha*. The aggravated *Doshas* affect *Sira Prathana* through *Aakshepa*, exposing them to *Sampeedana*, *Samkochana*, and *Vishoshana*, ultimately leading to the formation of *Granthi*, which protrudes outward. In *Siraja Granthi*, manifestations like *Sampeedya*, *Nisphuram*, and *Nirujam* can be associated with the persistent, dull pain observed in varicose veins. Likewise, features such as *Samkochya*, *Vrutta*, *Unnatha*, *Vakrikitya*, and *Shopham* correspond to the swollen, twisted, and enlarged veins, characteristic of varicose veins¹⁰. The treatment involves *Veshtana*, *Siravyadhana*, and *Vatarakta Chikitsa*.

This case report presents a case of young osteoarthritis associated with varicose veins, obesity, and an upper respiratory tract infection, which was successfully treated with *Shamana* and *Shodhana Chikitsa*, resulting in significant improvement.

2. Patient Information

A 43-year-old middle-aged female patient presented with complaints of bilateral knee joint pain, more pronounced in the right knee than the left, since four months. The pain was associated with severe swelling and morning stiffness lasting for more than 15 minutes. The patient denied any history of trauma or fall. She complains of increase in pain at night and on walking, climbing stairs, and sitting on the floor. However, she experienced partial relief upon wearing knee cap and on lying in supine position. Patient also has a long-standing history of varicosity of veins in the anterior aspect of left lower limb for the past 20 years. Despite the visible dilated veins, she did not report any significant pain or discomfort related to the varicosity. She had previously undergone treatment with conventional medicine and physiotherapy, but despite continued efforts, she found no significant relief from

her symptoms. Thus, she approached the OPD department of Kayachikitsa at Sri Jayendra Saraswathi Ayurveda Hospital for further treatment.

Past Medical History:

Recurrent upper respiratory tract infection since 3 years. Patient had no history of DM/ HTN/BA/TB.

Family History:

No relevant family history.

Personal History:

- Appetite: Good
- Bowels: Constipated
- Micturition: Regular
- Sleep: Disturbed Due To Pain
- Diet: Mixed
- Habits: Tea thrice a day

Menstrual History:

- Age of menarche: 13 years
- Age of menopause: not yet attained
- Duration of flow: 4 days
- Duration of cycle: 28 days
- Quantity: Normal; Type: Regular
- G₂P₂L₀A₂

Psychosocial History:

Mental Health:

- Mental illness: Absent
- Stressful events: Absent
- Personal coping strategies: social support network (family and friends)

Personal Habits:

- Tobacco: NIL
- Alcohol: NIL
- Illicit drugs: NIL

Clinical Findings:

General Examination:

- Blood Pressure: 120/80 mmHg
- Respiratory Rate: 17rpm
- Heart Rate: 79bpm
- Oedema: Bilateral knee joints
- Icterus: Absent
- Pallor: Absent
- Cyanosis: Absent
- Lymph nodes : No enlargement
- Height: 168cm
- Weight: 89kg
- BMI: 31.54
- Temperature: 35.9C

Systemic Examination:

No abnormality was detected in other systemic examinations.

Table 1: Local Examination: Knee Joint Examination

Inspection	
Oedema	Present in bilateral knee joints.
Redness	Absent
Scar	Absent
Erythema	Absent
Baker's cyst	Absent
Leg length discrepancy	Absent
Varicosity of veins	Present in the anterior aspect of left lower limb
Gait	Antalgic gait
Deformity	Absent
PALPATION:	
Tenderness	Present in bilateral knee joints
Crepitus	Present in bilateral knee joints
Local temperature	Raised
RANGE OF MOVEMENTS: Restricted and Painful	

Special Tests		
	Left Knee Joint	Right Knee Joint
Bulge Sign	Absent	Present
Balloon Sign	Absent	Absent
McMurray Test	Negative	Negative
Valgus Stress Test	Negative	Negative
Varus Stress Test	Negative	Negative
Anterior Drawer Test	Negative	Negative
Posterior Drawer Test	Negative	Negative
Lachman Test	Negative	Negative

Table 2: Respiratory Examination:

Inspection:	
Shape of chest	<ul style="list-style-type: none"> Bilaterally symmetrical Transverse diameter > Anteroposterior diameter.
Rate of respiration	18 rpm
Type of respiration	Thoracoabdominal
Deformities	Absent
Position of trachea	Not deviated
PALPATION:	
Apex beat of heart	Normal
Expansion of chest	Bilaterally Symmetric
Tactile vocal fremitus	Normal
PERCUSSION:	
<ul style="list-style-type: none"> Resonant Loud intensity Low- pitch 	
AUSCULTATION:	
Breath Sounds	NVBS
Added Sounds	Wheeze
Vocal resonance	Normal
CHARACTERISTICS OF COUGH:	
Duration of cough	3 years (on and off)
Type of cough	Dry
Character of cough	Without hoarseness
Sputum	Absent
Haemoptysis	Absent
Dyspnoea	Exertional dyspnoea Present

Table 3: Varicose Veins Examination:

Site & Distribution	Dilated, tortuous veins along the anterior aspect of the left lower limb, commonly following the great saphenous vein pathway
Size & Shape	Veins appear engorged, elongated, and twisted
Skin Changes	Hyperpigmentation
Swelling	Absent

Venous Ulcers	Absent
Venous Engorgement	Visible prominent veins, which increase in prominence on standing
Skin Texture	Thickened
Presence of Telangiectasia	Absent
Trendelenburg Test	Positive
Perthes Test	Positive

Dasha Vidha Pariksha:

- Prakruti: Kapha vataja
- Vikruti: Vata Kapha
- Sara: Mamsa
- Samhanana: Madhyama
- Pramanam: Madhyamma
- Satmyam: Sarvarasa
- Satvam : Madhyamma
- Vaya: Madhyamma
- Ahara Shakthi: Madhyamma
- Vyayama Shakthi: Avara

Ashta Vidha Pariksha:

- Nadi: Kapha vata
- Mootram: Prabhoota
- Mala: Ama
- Jihwa: Lipta
- Shabda : Spashta
- Sparsha: Anushna Sheeta
- Drik: Madhyama
- Akruthi: Pravara

Table 4: Case Timeline

Year	Events of Complaints
2003	Varicose veins in left lower limb.
2020	Presented with recurrent upper respiratory tract infections
2023	Presented with complaints of bilateral knee joint pain, more pronounced in the right knee than the left.

Diagnostic Assessment:

X-ray of both knee joint Anteroposterior view :
Right Knee Joint: Loss of joint space , presence of osteophytes and subchondral sclerosis.

Left Knee Joint: Mild loss of joint space and definite presence of osteophytes.

According to KL grading: Grade III OA of Right Knee joint and Grade II OA of Left knee joint.



Samprapthi Ghataka:

- Dosa: Vata Pradhana Tridosha
- Dushya: Asthi, Snayu, Sira
- Srotas: Asthivaha Srotas, Raktavaha
- Srotodushti: Sanga
- Rogamarga: Madhyama
- Sancharasthana: Janu
- Udbhavasthana: Pakwashaya

- Vyakthasthana: Janu Sandhi
- Adhistana: Janu
- Ama: Sama Jataragni

Diagnosis:

Patient was diagnosed on the basis of signs and symptoms as Janu Sandhigata Vata / Young Osteo Arthritis. Diagnosis was confirmed using imaging investigation such as X-ray.

Table 5: Internal Medicines

DAY 1-7				
S.NO	MEDICINE	DOSE	ANUPANA	TIME OF ADMINISTRATION
1.	Dashamoolakatutrayadi Kashayam	10ml—0—10ml	60ml Lukewarm Water	At 6AM and 6PM before food
2.	Amruthottaram Kashayam	10ml—0—10ml		
3.	Mahasudarshana Ghana Vati	1—0—1	With Kashayam	At 6AM and 6PM before food
4.	Ksheerabala 101 Avarti	10drops—0—10drops	With Kashayam	Before food.
5.	Gandha Taila Capsule	1—0—1	With Lukewarm Water	After food
DAY 7-14 [Kashayam alone was changed]				
1.	Rasnaerandadi Kashayam	10ml—0—10ml	60ml Lukewarm Water	At 6AM and 6PM before food
2.	Punarnavadi Kashayam	10ml—0—10ml		

Table 6: Therapeutic Intervention:

External Procedures		
S. No	Procedure	Number Of Days
1	Udwarthanam with Kolakulathadi Churnam	3 days [day 1-3]
2	Lepam with Jatamayadi Churnam with Dhanyamla	3 days [day 1-3]
3	Sadhyo Virechanam with 60ml of Gandharvahastadi Eranda Tailam. Number of vegas:6	1 day [day 4]
4	Abhyangam with Sahacharadi Tailam	8 days [day 5-day 11]
5	Jambira Pinda Sweda	7 days [day 5-day 11]
6	Anuvasana Vasti with 120ml Ksheerabala Tailam	5 days [day 5,6,8,10,12]
7	Lekhana Vasti • Saindhavam: 10g • Madhu: 100ml • Ksheerabala Tailam: 80ml • Shatapushpa Kalkam: 30g • Gomutra: 100ml • Punarnavadi Kashayam:200ml	3 days [day 7,9,11]

3. Discussion

The treatment was scheduled for 12 days with the goal of balancing Tridoshas. It aimed not only to reduce pain caused by osteoarthritis and varicose veins but also to improve respiratory health and support weight management.

Probable Mode of Action

- **Dashamoola Katutrayadi Kashayam:**

Dashamoola Katutrayadi Kashayam is a combination of *Dashamoola*, *Trikatu*, and *Vasa*. *Dashamoola* due to its *Kashaya Rasa*, *Ruksha* and *Ushna Guna*, aids in *Amapachana*. It also possesses *Tridoshahara* and *Shothahara* properties, making it effective in managing both arthritic and respiratory system. *Trikatu*, due to its *Katu Rasa*, promotes *Amapachana*. Although *Katu Rasa* typically aggravates *Vata Dosh*, its *Madhura Vipaka* and *Ushna Guna* help balance *Vata*. *Vasa* is primarily known for its *Swasa Kasahara* properties but also acts as a *Rakta Dosh* *Nashaka*, making it beneficial in relieving *Sirajagranthi Lakshanas*. Studies indicate that *Dashamoola* contains alkaloids, tannic acid, and flavonoids, which exhibit Anti-inflammatory and Analgesic properties¹¹. Vasicine, a quinazoline alkaloid found in *Vasa*, has been studied for its Uterotonic effects, which help in

reducing excessive bleeding or spotting often seen in premenopausal women¹².

- **Amruthottara Kashayam:**

Amruthottara Kashayam is composed of *Haritaki*, *Guduchi*, and *Shunti*. It is *Tridoshahara*, with a predominant action in alleviating *Kapha Dosh*. This formulation exhibits *Deepana*, *Pachana*, and *Lekhana* properties, making it effective in metabolic and inflammatory disorders. Studies indicate that *Guduchi* possesses anti-inflammatory, antioxidant, anti-allergic, and immunomodulatory properties, while *Shunti* exhibits significant anti-inflammatory and antiviral effects¹³. By facilitating the elimination of *Ama*, *Amruthottara Kashayam* aids in reducing systemic inflammation. Its *Tikshna* and *Ushna* properties contribute to *Kapha Vilayanam*, thereby alleviating respiratory symptoms such as cough and dyspnea.

- **Mahasudarshana Ghana Vati:**

Mahasudarshana Ghana Vati contains 26 parts of *Kiratatikta* and other *Tikta Rasa Pradhana Dravyas*. With *Laghu Ruksha Guna* and *Ushna Virya*, it effectively alleviates *Kapha Dosh*. *Mahasudarshana Ghana Vati* primarily targets *Kapha* and *Pitta Dosh*, making it beneficial in respiratory infections. Studies have proven that *Swertia Chirata (Kiratatikta)* possesses antimicrobial, antipyretic, and immunomodulatory

properties, making it highly effective in managing Upper Respiratory Tract Infections (URTI) by reducing congestion, fever, and inflammation¹⁴. According to *Bhaishajya Ratnavali*, *Mahasudarshana Ghana Vati* is also indicated for *Trik-Pristha-Kati-Janu-Parswa Shoola*, making it effective in also alleviating arthritic symptoms¹⁵.

- **Ksheerabala 101 Avarti:**

Janu Sandhigata Vata is characterized by *Shoola* (pain), *Shotha* (swelling), *Atopa* (crepitus), and *Hanti Sandhigata* (restricted movements). *Ksheerabala Taila Avarti* possess *Madhura Rasa* and *Tikta Anurasa*, *Guru Snigdha Picchila Guna* and *Ushna Virya* which counteract the *Rukshata* and degeneration caused by *Vata*. Studies have proven that Ephedrine from *Bala* has analgesic and anti-inflammatory effects, reducing stiffness and pain¹⁶.

- **Gandha Tailam Capsule:**

Acharya Sushruta has mentioned *Gandha Taila* in *Bhagna Chikitsa* due to its *Sandhanakara* and *Balya* properties. *Gandha Taila* consists of *Tila*, *Madhuka*, *Eladi Gana*, and *Padmakadi Gana*. Due to its *Snigdha*, *Balya Guna*, and *Ushna Virya*, *Gandha Taila* alleviates vitiated *Vata*. It has *Asthi Dhatu Poshana* properties, which may be effective in reducing degeneration, strengthening joints, and improving restricted range of motion in young osteoarthritis¹⁷. Additionally, *Gandha Taila* has *Pitta-Raktashamaka* properties, which might reduce the vitiated *Pitta* and *Rakta* involved in varicose veins.

- **Rasnaerandadi Kashayam:**

After seven days, the *Kashayam* was changed, as the patient had obtained satisfactory relief from respiratory symptoms, and *Ama Pachana* was obtained. *Rasnaerandadi Kashayam* is *Vata-Pittahara* in nature, the *Vatahara* properties relieve the arthritic symptoms. And *Pittahara* property improves circulation and reduces venous congestion, ultimately alleviating varicose veins. Studies have proven that ingredients like *Rasna*, *Eranda*, *Devadaru*, and *Guduchi* possess strong analgesic and anti-inflammatory properties^{18,19,20,21}.

- **Punarnavadi Kashayam:**

Punarnavadi Kashayam is mentioned in *Shotha Chikitsa* and is indicated for *Shotha*, *Kasa*, *Shwasa*, and *Shoola*. *Shunthi*, *Haritaki*, and *Devadaru* possess *Deepana-Pachana* properties. *Punarnava* and *Devadaru* have *Shothahara* properties. Studies have proven that *Punarnava* is an efficient diuretic, and its diuretic action may help reduce synovial fluid accumulation, swelling, and joint stiffness²². *Punarnavadi Kashayam* is *Vatapittahara* in nature, thereby alleviating the symptoms of *Sirajagranthi* (varicose veins).

Probable mode of action of External Therapies:

- **Udwarthanam:**

Udwarthanam, due to its *Laghu* and *Tikshna Guna*, promotes *Ama Pachanam* and *Agni Deepanam*. "*Udwarthanam Kaphaharam Medasaha Pravilayanam*" signifies that *Udwarthanam* has *Kaphahara* and *Medohara* properties²³. *Kolakulathadi Churnam* consists of *Kola*, *Kulatha*, *Suradaru*, *Rasna*, *Masha*, *Atasi*, *Kushta*, *Vacha*, *Shatahva*, *Yava*, and *Eranda*. All these *Dravyas* possess *Ushna*, *Tikshna*, and

Kapha-Vatahara properties. It is also *Shothahara* and *Shoolahara* in nature. As a result, it helps in reducing edema in the knee joint and managing obesity. A clinical study was conducted by Dr. Neethu Dev et al. (2020) at Karnataka Ayurveda Medical College, Mangalore; on patients with varicose veins using *Udwarthanam* with *Kolakulathadi Churnam* and *Siravyadhanam*. And has proven statistically significant with ($p < 0.05$)²⁴.

- **Lepam:**

As the patient had oedema in bilateral knee joints, *Lepana* was initially done to reduce *Shotha* and facilitate *Amapachana*. The absorption of *Lepa* occurs through transdermal drug delivery. *Lepa* is applied against the direction of hair follicles to ensure better and quicker absorption^{25,26}. *Jatamayadi Churnam* consists of *Jatamamsi*, *Chandana*, *Kundurushka*, *Brahmi*, *Pushkaramoola*, *Tagara*, *Ashwagandha*, *Ushira*, *Rasna*, and *Sarala*. All these *Dravyas* possess *Vata-Pitta Shamana* and *Shothahara* properties. Studies have shown that *Boswellic acids*, inhibit inflammatory pathways (COX-2, 5-LOX), thereby reducing joint swelling and pain²⁷.

- **Sadyo Virechanam:**

Virechana primarily targets *Pitta Dosha*, while also balancing *Vata* and *Kapha*. In this case, as part of *Purva Karma*, *Abhyanga* was performed using *Sahacharadi Tailam*, followed by *Bashpa Sweda*. *Sadyo Virechana* was induced with 60 ml of *Gandharvahastadi Eranda Tailam*. The patient experienced eight *Vegas* with *Samyak Virechana Lakshanas*. Most of the *Dravyas* in *Gandharvahastadi Eranda Tailam* possess *Vata-Kaphahara*, *Deepana*, *Pachana*, and *Vatanulomana* properties. Its *Tikta Rasa* and *Ushna Virya* facilitate *Ama Pachana*. Studies have shown that alkaloids and flavonoids present in *Eranda* exhibit potent anti-inflammatory and analgesic properties²⁰. Given the patient's history of recurrent upper respiratory tract infections, *Virechana* plays a crucial role in eliminating vitiated *Kapha* and *Vata Doshas*, with *Pitta* being the primary causative factor. As a result, *Virechana* effectively alleviates both respiratory and arthritic symptoms.

- **Abhyangam:**

Sahacharadi Tailam Abhyanga was performed as it contains ingredients with *Vata-Pitta Hara* properties. Due to its *Shothahara*, *Raktashodhana*, and *Vedanasthapana* properties, it helps alleviate symptoms of varicose veins. Its *Tikshna* and *Ushna Guna* aid in *Amapachana*. The chemical constituents like *Galangin*, *Eugenol*, *Sesquiterpenes*, *Flavonoids*, and *Alkaloids* found in *Sahachara*, *Devadaru*, and *Rasna* exhibit potent anti-inflammatory and analgesic properties²⁸. *Iridoids*, *Santalol*, *Anthraquinones*, and *Tannins* present in *Nirgundi*, *Chandana*, and *Manjistha* help detoxify the blood and reduce venous congestion^{29,30}.

- **Jambira Pinda Sweda:**

Abhyanga was followed by *Jambira Pinda Sweda*, as it provides both *Snehana* and *Swedana*. *Jambira* possesses *Amla Rasa* and *Ushna Guna*, thereby alleviating *Vata Dosha*. The *Ushna* and *Snigdha Guna* of *Swedana* help reduce stiffness in the knee joint, thereby improving the range of motion³¹. Since it is performed after *Snehana*, it acts as

Snehakara and *Kledakara*, thereby helping to reduce crepitus in the joints.

- **Anuvasana Vasti:**

Based on the patient's *Roga Bala*, *Yoga Basti* was planned. *Anuvasana Vasti* was administered with 120 ml of *Ksheerabala Tailam*. This formulation, composed of *Bala*, *Tila Taila*, and *Ksheera*, possesses *Madhura Rasa* and *Madhura Vipaka* making it effective in alleviating both *Vata* and *Pitta Doshas*³². As a result, it helps in reducing symptoms of *Sandhigataavata* and *Siraja Granthi*. Additionally, since the patient is in the perimenopausal stage, *Ksheerabala Taila*, due to its *Snigdha Guna* and *Rasayana* properties, counteracts the dryness and degenerative changes associated with menopause.

- **Lekhana Vasti:**

Vasti is superior to the other therapeutic measures on account of its varied actions in both *Dwidha chikithsa*, that is, *Santharpana* and *Apatharpana*, including *Samshodhana*, *Samshamana*. *Saindhava Lavana*, due to its *Sukshma* and *Tikshna* properties, helps liquefy and expel vitiated *Malas* and *Doshas*³³. *Madhu* possesses *Kaphachedana*, *Lekhana*, and *Balya* properties³⁴. *Ksheerabala Taila* is *Vatahara*, while *Punarnavadi Kashayam* is *Shothahara*, reducing swelling and fluid accumulation. Additionally, *Gomutra* is known as *Sanjeevani* for its rejuvenating effects, has *Tikshna*, *Ushna*, *Kapha-Vatahara*, and *Agni Deepana* properties³⁵. Considering these, *Lekhana Vasti* was planned to reduce excessive *Kapha* and *Meda* addressing obesity. Furthermore, its *Vatahara* and *Amahara* effects help alleviate pain and inflammation in young osteoarthritis.

Table 7: Lekhana Vasti Ingredients

Ingredients	Dose
<i>Saindhavam</i>	10g
<i>Madhu</i>	100ml
<i>Ksheerabala Tailam</i>	80ml
<i>Shatapushpa Kalkam</i>	30g
<i>Gomutra</i>	100ml
<i>Punarnavadi Kashayam</i>	200ml

Table 8: Outcome

Phase	Outcome
Phase1- <i>Deepana Pachana</i> with <i>Udwarthanam</i> and <i>Lepa</i> .	The patient experienced mild relief in pain while walking, and the swelling reduced comparatively
Phase 2- <i>Virechanam</i>	After <i>Virechana</i> , the patient experienced relief from cough, and on auscultation, the chest was clear.
Phase 3- <i>Abhyangam</i> , <i>Jambira Pinda Sweda</i> and <i>Yoga Vasti</i> .	Post <i>Swedana</i> and <i>Vasti</i> , the patient experienced relief from stiffness and an improvement in the range of movements. After 12 days of treatment, the patient reported satisfactory relief from bilateral knee joint pain and a marked reduction in weight.

Table 9: Effect on Subjective Parameters³⁶

S.NO	Symptoms	Before Treatment (Out of 5)	After Treatment (Out of 5)
1.	Pain	4	1
2.	Swelling	4	1
3.	Tenderness	3	1
4.	Stiffness	4	0
5.	Warmth	2	0
6.	Cough	Present	Absent
7.	Breathlessness	Present	Absent
8.	Discolouration of Varicose veins	Present	Comparatively reduced
9.	Swelling of Varicose veins	Present	Comparatively reduced

Table 10

WOMAC SCALE ³⁷ (Western Ontario and McMaster Universities Osteoarthritis Index)	Before Treatment 50 (Moderate)	After Treatment 23 (Mild)
Weight	89kg	82kg



Before Treatment



LEPAM



After Treatment

Follow up: The patient came for a follow-up after 15 days and reported improvement in bilateral knee joint pain. The varicosities have faded, and the patient has lost weight

Intervention Adherence And Tolerability: Patient adhered to the entire treatment protocol.

Adverse And Unanticipated Events: No adverse and unanticipated events were reported during the entire course of treatment.

Strengths And Limitations Associated With This Case Report:

Strength: Within 12 days of treatment patient has found a drastic improvement on both arthritic and respiratory symptoms.

Limitations: No limitations were experienced.

Patient Perspective: I had been struggling with multiple health issues for a long time. My severe knee joint pain caused my daily activities difficult. Along with that, I frequently suffered from respiratory issues, leading to persistent cough and congestion. My obesity further added to my discomfort, and varicose veins in my legs caused swelling and aching pain. I had tried various treatments, but nothing provided long-lasting relief. A friend recommended this hospital and its specialized Panchakarma therapy. By the third day of treatment, my joint stiffness reduced, and my breathing became clearer. After undergoing therapies like Virechana and Basti, I felt lighter, and my digestion improved. By the 7th day, my cough and congestion were almost gone, and my joint pain was much more manageable. By the 12th day, I had experienced a remarkable relief in knee pain and my weight started coming under control, I am truly grateful to the doctor and therapists for their dedication and care.

Informed Consent: Informed consent was obtained from the patient.

Take Away Lessons From This Case Report: This case highlights the complexity of managing Young-Onset Osteoarthritis with multiple coexisting conditions. An effective treatment protocol should target the underlying pathology of the disease, as addressing its origin can help alleviate associated conditions. The management approach should also focus on preventing complications and risks. This case report provides valuable insights into a multidimensional treatment strategy, using *Shodhana* and *Shamana Chikitsa* to achieve comprehensive and sustainable disease management.

4. Conclusion

A comprehensive treatment approach is essential for managing Young osteoarthritis, varicose veins, obesity, and upper respiratory tract infections (URTI), as these conditions share common risk factors and can exacerbate one another. Obesity increases mechanical stress on joints, exacerbating *Sandhivata* (osteoarthritis), while impaired circulation in *Siragranthi* (varicose veins) leads to inflammation. Additionally, obesity-related inflammation can weaken immune function, making individuals more prone to *Swasa* (like URTI). Hence, to break this cycle, a *Vatapradhana Tridoshahara Chikitsa* was implemented, along with *Medohara Chikitsa*, resulting in significant pain relief, reduced varicosities, and weight loss.

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