

Conservative Management of Osteoarthritis with Hypertension and Ischaemic Heart Disease through Ayurvedic Treatment: A Case Report

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ABSTRACT

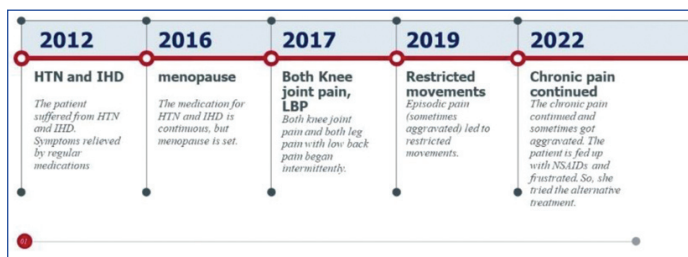
The ayurvedic management of osteoarthritis is well known, but the management of arthritis with co-morbidities such as hypertension, ischaemic heart disease, obesity, and lumbar spondylosis through Ayurvedic treatment is yet to be discovered. In the present case, a 50-year-old female presented with complaints of mild to moderate pain in the lower back region, legs, knee joints, and swelling over both knees for five years. She also had a history of hypertension and IHD for 10 years and had been taking Non Steroidal Anti-inflammatory Drugs (NSAIDs) without any relief. Seeking Ayurvedic treatment, the patient discontinued NSAIDs and underwent Panchakarma for four weeks. The treatment resulted in significant pain relief, improved VAS score, and increased walking distance. The present case report provides a detailed ayurvedic treatment protocol for managing arthritis with co-morbidities such as hypertension, ischaemic heart disease, obesity, and lumbar spondylosis.

Keywords: Arthritis, Ayurvedic medicine, Co-morbidities, Panchakarma

CASE REPORT

A 50-year-old female presented at Goenka Hospital in Gandhinagar, Gujarat, for Ayurvedic treatment of various complaints, including pain in the lower back region, legs, and knee joints, as well as swelling in both knees with restricted movements for the past five years. The pain was continuous, mild to moderate in nature, and usually aggravated by physical activities. The pain in her left leg was more intense than in her right leg. Additionally, the patient experienced worsened low back pain in the early morning.

The patient had a history of hypertension and IHD for 10 years and was receiving regular treatment. She began experiencing pain in her knees and lower back five years ago and had been taking NSAIDs, which did not provide any relief. As a result, she sought ayurvedic treatment [refer to Table/Fig-1].



[Table/Fig-1]: Timeline of disease progression.

Day	Symptoms	Drugs/Procedures with dosage and frequency	Observations
1 st to 4 th	Pain in both legs, Both knee joint pain, low back pain heaviness in the whole body	Trifala Churna Udvartana (powder massage by lukewarm Trifala Churna-500 gm once during the morning). 1. Trayodashang Guggul 250 mg twice a day with hot water. 2. Rasnadi Kashayam 10 mL with equal cold water twice a day. 3. Medohara Vati 250 mg twice a day with hot water. 4. Ajmodadi Churna 1 gm twice a day with hot water.	Mild pain relief
5 th to 6 th	Both knee joint pain, low back pain heaviness in the whole body	1. Trifala Churna Udvartana as earlier. 2. Massage with Lukewarmsesame oil for 30 minutes over low back and feet and hot fomentation. Katibasti (20 minutes) sesame oil Internal medicines as of 13 th June continued.	Marked pain relief heaviness 90% relief
7 th	The above complaints subsided, but new complaints. Pain in the abdomen (umbilical region and left the inguinal canal, the pain began during the early morning). Constipation, hard stool, with tenesmus, faeces in low quantity	Same medicines as 14/6/22, and added 1. Shankha Vati-125 mg twice with hot water. 2. Erandabhrishta Haritaki-500 mg-2 tabs at night with hot water.	The patient has slight indigestion

During the examination, she was found to be obese, with a body weight of 74 kg and a height of 5 feet 2 inches (BMI 30). There was moderate fat accumulation in both the abdomen and hip joints. Slight swelling was observed in both knee joints, with the left knee being more affected than the right. Additionally, crepitus was detected in both knee joints. The patient was unable to walk more than 10 steps. However, her vital signs, including temperature, pulse rate, and blood pressure, were within normal ranges. The Visual Analogue Scale (VAS) score was 6/10 for the right leg, 7/10 for the left leg, and 6/10 for the low back.

She was diagnosed with Sthaulya and Aamvata according to Ayurvedic principles. She was placed on ayurvedic treatment for Four weeks avoiding the use of NSAIDs. However, modern medicines for HTN and IHD were continued.

During her four-week stay at the hospital, drugs were prescribed for Aama Dosh for the initial four days. Panchakarma called 'Udvartana' (heated 500 gm of Triphala powder and used as a massage aid) was administered once in the morning along with Trayodashang Guggul (250 mg twice a day), Medohara Vati (250 mg twice a day), Rasnadi Kashayam (10 mL twice a day), and Ajmodadi Churna (1 gm twice a day) orally with hot water. Additionally, Panchakarma treatments such as oil massage, sudation, Katibasti, and Janubasti were administered as required [Table/Fig-2,3].

8 th to 23 rd	No abdominal pain, no constipation, and joint pain decreased by 60-70%	Same treatment.	Ajirna was relieved. Agni function improved, which caused pain relief
24 th to 28 th	Pain relief, free and painless movements like walking, standing, sleeping	Udvatrana hold-massage with sesame oil and hot fomentation followed by Kati Basti (holding of lukewarm sesame oil over lower back for 30 minutes), and Janu Basti (holding of lukewarm sesame oil over both knee joints). Internal medicines as it is.	Pain relief 80-90%

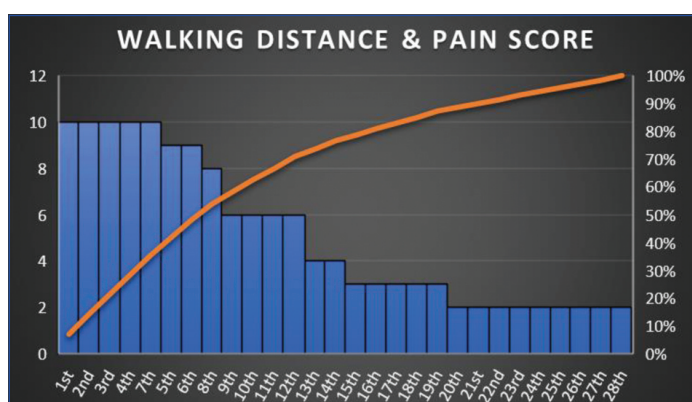
[Table/Fig-2]: Symptoms and treatment.

Drug name	Contents	Dose	Anupan	Source
Trayodashang Guggul (Bhaishajyaratnavali Vataroga Adhikar 89-92)	Abha, Ashwagandha, Hapusha Guduchi, Shatavari, Gokshur, Vridhadaru, Rasna, Shatapushpa, Karchur, Yavani, Sunthi, Guggul Ghrita	250 mg twice	Hot water	Prepared in the attached pharmacy
Rasnadi Kashayam (Sahasrayoga Kashay Prakaran 196)	Rasna, Tamalaki, Vrisha, Shati, Chitra, Abda, Agaru, Chvyra, Ashambhit, Darvi, Bharangi, Patol, Pushkara, Nisha, Saireya, Vishwa, Agni, Dashmool, Daru	10 mL 2 times a day after food	Hot water	Freshly prepared
Medohar Guggul	Trikatu, Musta, Chitrakmoola, Guggul	250 mg two times a day	Hot water	Prepared in the attached pharmacy
Ajmodadi Churna (Rasatantrasara)	Ajmoda, Vidang, Saidhav, Devdaru, Chitraka, Pippalimula, Shatpushpa, Trikatu, Pathya, Vridhadaruk	1 gm two times a day after food	Hot water	Prepared in the attached pharmacy
Shankha Vati (Bhaishajyaratnavali Agnimandya Rogadhikar 182-183 AFI Vol. 1)	Parad, Gandhak, Shankh Bhasma, Panchalavan, Trikatu, Vatsanabh, Hingu, Nimbu Swaras, Chinch Kshar	250 mg 2 times after food	Hot water	Prepared in the attached pharmacy
Eranda Bhrishta Haritaki	Eranda, Haritaki	1 gm at night	Hot water	Prepared in the attached pharmacy

[Table/Fig-3]: Drugs details.

Follow-up was done based on two assessment parameters:

- 1. The self-reported Visual Analogue Scale (VAS):** A self-reported VAS scale was used to measure knee joint pain, leg pain, and low back pain. The scale ranged from 0 (indicating no pain) to 10 (indicating unbearable pain). Every day, during the morning round (10-10:30 AM). It can be observed that there was a progressive decrease in the self-reported VAS scale, except on 15th June 2022, when the patient experienced aggravated symptoms [Table/Fig-4]. After being discharged, the patient reported decreased pain levels. The VAS score for the left leg decreased from 7/10 to 2/10, while the right leg decreased from 6/10 to 3/10. The low back pain also significantly reduced from 6/10 to 1/10.
- 2. Walking distance:** The patient was asked to walk independently every morning until she could. The distance was measured daily, and the mean length was 19.27 metres (range: 7-50 metres). The walking distance gradually increased from 7 metres on the first day to 50 metres on the 28th day.



[Table/Fig-4]: Walking distance and pain score.

DISCUSSION

Ayurvedic treatments involving dry powder massage, followed by massage with sesame oil, hot fomentation, Kati Basti, Janu Basti, and oral Ayurvedic drugs have significantly relieved pain, edema, and restricted movements in patients with osteoarthritis who also have a history of HTN, lumbar spondylosis, obesity, and IHD.

Ayurveda consultants widely treat arthritis with ayurvedic medicines and Panchakarma. However, when arthritis co-exists with HTN or IHD, they usually refer such cases to modern medical specialists. In this particular case. The ayurvedic treatment effectively provided relief for arthritis symptoms co-existing with HTN, IHD, obesity and lumbar spondylosis.

Research conducted by Grampurohit PL et al., focused on treating 25 cases of osteoarthritis with a Panchakarma method called Anuvasan Basti using Ksheerbala oil for 10 consecutive days, without any internal medication. A follow-up was conducted after 20 days to evaluate the results. The study observed a significant reduction in pain, swelling, tenderness, and crepitus without any radiological changes [1]. However, the present study excluded osteoarthritis cases with hypertension or IHD.

In the present case study, personalised medication was utilised through various Panchakarma procedures such as Udvartana, massage, and hot fomentation to treat a patient with osteoarthritis, hypertension, and IHD. Ayurveda's philosophy emphasises the importance of tailored treatments for each individual.

A case of Motor Neuron Disease (MND) was treated for almost a year using Panchakarma procedures such as Udvartana, Swedana, and oral Ayurvedic medication, as reported by Policepatil BV [2].

The study showed a significant increase in the Amyotrophic Lateral Sclerosis Functional Rating Scale (ALSFRS-R) from 29 before the treatment to 38 after the treatment, indicating positive improvement in speech, swallowing, food cutting, climbing, orthopnoea, and salivation. However, the patient in this case did not have a history of arthritis, hypertension, IHD, or lumbar spondylosis. The similarity between the present case and the current case is that both used Udvartana and Swedana for Panchakarma treatment, as both diseases are Vata dominant, according to Ayurveda.

In a study conducted by Rajoria K et al., limb girdle dystrophy was treated using different Panchakarma procedures [3]. Similarly, Rohit S and Rahul M used Panchakarma procedures like Snehana (external oleation), Swedana (passive heat therapy), Hrudaydhara (concoction dripping treatment), and Basti (enema) twice a day for seven days, followed by Kadha ARJ et al., for the next 30 days in patients with Congestive Heart Failure (CHF) [4]. The effect was assessed using Maximum Aerobic Capacity (MAC) uptake. A significant improvement was seen in MAC levels on the seventh day

(7.11% $p=0.029$) compared to the baseline. This improvement remained stable during the two follow-ups on the 30th and 90th days. In the present case report, the patient had a history of IHD and hypertension with arthritis and lumbar spondylosis. Therefore, in the present case, Panchakarma procedures were used, but they were slightly modified based on the disease condition.

A clinical trial conducted by Sane R et al., demonstrated the effectiveness of heart failure reversal treatment as an additional therapy for patients with chronic heart failure [5]. The trial involved 70 patients, with one group receiving Heart Failure Reversal Therapy (HFRT) in addition to the Standard CHF Treatment (SCT), while the other group only received SCT. The results showed that HFRT improved the functional capacity of CHF patients without any safety concerns. In the current case study, some of the Panchakarma procedures were administered similarly to the aforementioned trial.

Rastogi S and Chiappelli F found improvement in blood pressure and pulse rate in hypertensive patients who were given Sarvang Swedana [6]. In the present case study, as the patient was a known hypertensive, the observational study by Rastogi S and Chiappelli F provided a basis for performing Panchakarma (Swedana) in the present case study [6]. An in-vitro study revealed that Trayodashang Guggul had anti-inflammatory and antioxidant properties. It also inhibited membrane stabilising, protein denaturation inhibitory, antilipoxygenase, and antiproteinase activities [7]. Trayodashang Guggul has been used in this case report as well. Similarly, Ajmodadi Churna was found to exhibit anti-inflammatory activity by mediating prostaglandins [8].

Both panchakarma and ayurvedic medicines have been effective in treating uncomplicated cases of arthritis. However, this particular case provided a detailed insight into the treatment protocol for arthritis accompanied by several other health conditions such as HTN, IHD, obesity, and lumbar spondylosis. Therefore, Ayurvedic treatment can also be considered as an alternative treatment modality when arthritis patients present with such co-morbidities.

CONCLUSION(S)

Arthritis patients who also suffer from co-morbidities like HTN, IHD, obesity, and lumbar spondylosis are usually referred to modern medical specialists. However, the present case report shows that these patients can find relief through Ayurvedic treatments such as Panchakarma and Ayurvedic medicines. Ayurvedic consultants can now treat arthritis through Ayurvedic medicines and Panchakarma when arthritis co-exists with the above-mentioned conditions.

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