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Case Report

Standalone Ayurvedic Management of Grade IV Chondromalacia Patella Integrating Panchakarma and Agnikarma: A case report

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ABSTRACT:

Background: A Chondromalacia patella (CMP) is a painful knee condition of the patellar articular cartilage resulting in pain, swelling, and functional limitation. Grade IV CMP, characterized by cartilage loss with exposure of subchondral bone, is an uncommon (~0.3% of knee disorders) and usually surgical condition. CMP can be equated in Ayurveda with *Janu Sandhigata Vata* (degenerative disorder of knee joint), in which aggravation of *Vata Dosha* leads to degeneration, obstruction, and impairment of knee joint function. Ayurvedic treatment comprises pacification of *Vata*, tissue nourishment, and facilitation of function through *Shodhana* (purificatory) and *Shamana* (palliative) therapies. Severe CMP is a challenge in the sense that cartilage destruction is permanent. Current treatment of Grade IV disease is surgery-dependent, Ayurveda provides an integrative, non-surgical intervention to alleviate symptoms, enhance function, and retard disease advancement. This case illustrates the successful Ayurvedic treatment of Grade IV CMP without surgery. **Clinical findings:** A 51-year-old woman visited KLE Shri BMK Hospital, OPD No. 7, presenting with pain, swelling, and restricted mobility of the left knee following trauma. MRI showed Grade IV CMP with Grade II tear of ACL and mild effusion. **Interventions:** *Sarvanga Abhyanga* with *Brihat Saindhavadi Taila* followed by *Dashamoola Parisheka*, *Janu Basti* with *Mahavishagarbha Taila*, *Matra Basti* with *Dhanwantari Taila* (60 ml), *Erandamoola Niruha Basti*, *Sthanika Lepa*, and *Agni Karma* with *Suvarna Shalaka*, in addition to oral medications, was administered for seven days and *Raktamokshana* (bloodletting) was performed on the first day. **Outcomes:** Post-treatment, the Kujala score improved from 36/100 (poor) to 76/100 (fair) at 40th day, after 80th day it has reached 90/100 (good) and clinically, pain, swelling, tenderness, and stiffness resolved; mobility also improved. **Conclusion:** Ayurvedic *Shodhana* (purificatory) and *Shamana* (palliative) therapies, along with *Raktamokshana* (bloodletting) and *Agnikarma* (therapeutic cauterization), showed excellent results in the management of Grade IV chondromalacia patella without surgical intervention within a follow-up period of 80 days of treatment.

KEYWORDS: *Agni Karma*, Ayurveda, Case report, Chondromalacia patella, *Janu Sandhigata Vata*, *Panchakarma*.

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1. INTRODUCTION

Chondromalacia patella is a condition in which the patellar hyaline cartilage becomes softer and more prone to deterioration. Only 0.3% of patients have Grade IV disease, compared to about 37% of people with knee joint problems; therefore, it is an uncommon condition. The degeneration affects first and mainly the articular cartilage of the patella and in young people is an important and common cause of disability. [1] The term "chondromalacia" is derived from Greek terms *malakia*, implying softening, and *chondros*, denoting cartilage. Chondromalacia is also known as ill cartilage. [2]

In Ayurveda, this condition is broadly considered under *Sandhigata Vata*, where in vitiated Vata enters the *Sandhi* (joint) and produces pain during flexion and extension. Through Ayurvedic management, Vata was pacified by *Basti* and *Agnikarma*, while vitiated *Rakta* was eliminated through *Raktamokshana*, resulting in faster recovery in the patient and This case also proves that *Snehana*, *Janu Basti*, *Raktamokshana*, *Niruha Basti*, and *Agni Karma* were useful in management of chondromalacia patella, even of Grade IV, which is rare and usually requires surgical intervention. This case study highlights improvement in the Kujala score, and faster recovery was noted due to *Raktamokshana* and *Agni Karma* along with *Panchakarma* procedures. This case report also sets an example of the role Ayurveda treatment protocol and integrative management is helpful in treating chondromalacia patella.

2. CASE STUDY

A 51-year-old female teacher, a known hypertensive, was apparently healthy three months ago. One day, she met with an accident and sustained an injury to the left knee joint. Since then, she started complaining of pain, swelling, and difficulty while walking. For these complaints, she visited an allopathic hospital where surgery was advised along with analgesics and anti-inflammatory drugs. The patient experienced temporary relief; however, after three to four days, symptoms reoccurred. She then visited our hospital for Ayurvedic management. On July 13, she visited our hospital and was admitted for seven days on an IPD basis for treatment. The patient was on a vegetarian diet. Her bowel movements were normal, and there were no addictions.

Family and psychosocial history: Nothing significant

Clinical examination: General condition: Fair

Pulse rate: 64 bpm

Blood pressure: 130/70 mmHg

BMI: 28.4

Rest of the vitals: Stable

Musculoskeletal examination of left knee:

Inspection: evident Swelling present, no any discoloration

Above knee – 50cm

Knee joint – 44cm

Below knee joint – 38.5cm

Palpation: Grade 1 Tenderness was observed

Crepitus: Present

Range of movements: Flexion – possible with pain

Extension – possible with pain

Internal rotation – possible with pain

External rotation – possible with pain

Quadriceps strength assessment – 4/5 (full ROM against moderate resistance)

Patellar grind test: Positive

Available investigations

MRI of the left knee joint (Figure 1) showed focal Grade IV chondromalacia patella, Grade II sprain of femoral attachment of lateral collateral ligament, and moderate knee effusion.

Figure: 1- MRI Findings Label A- softening of hyaline Cartilage

Diagnostic assessment

Patellofemoral pain syndrome and patellar tendinitis were considered as differential diagnoses during the examination. Both the patellar grind test and tap test were positive and MRI of the left knee revealed structural cartilage damage along with Grade IV chondromalacia patella. This condition involves *Vikruti* (vitiation) of *Vata* and *Pitta Dosha*, *Mamsa* (muscle), *Rakta* (blood), and *Asthi Dhatu* (bone), associated with weak digestion and obstruction of *Rakta Vaha Srotas* and *Mamsa Vaha Srotas* due to *Sanga* (obstruction). The disease follows the *Abhyantara Roga Marga* (internal disease pathway) and is categorized as *Krichra Sadhya Vyadhi* (difficult-to-cure disease). [3] Given the overlapping symptoms, *Abhigataja Sandhigata Vata* (traumatic degenerative joint disorder) was diagnosed, as it closely resembles the clinical features of chondromalacia patella (Table no 1).

Table No 1: Differential Diagnosis.

Disease	**Inclusion criteria**	**Exclusion Criteria**
Patellofemoral Pain Syndrome (PFPS)	Anterior knee pain - Pain worsens with climbing stairs, squatting, or prolonged sitting	No structural cartilage damage on MRI its Often idiopathic or overuse-related
Patellar Tendinitis (Jumper's Knee)	Localized anterior knee pain - Pain aggravated by jumping or running activities	Pain focused at the inferior pole of the patella and its Common in athletes
Chondromalacia patella(CMP)	Knee pain, swelling, and difficulty in walking structural cartilage damage on MRI	-

Table No 2: Time line and Treatment plan

Date	*Treatment*	Observation / outcome
20/07/2025	*Raktamokshana* (bloodletting) Site: medial aspect of *Gulpha Sandhi* (ankle (ankle joint).	Left knee swelling, pain on palpation, restricted movement, and positive

		patellar grind and tap tests were observed. **Kujala score: 36/100.[4]**
20/07/2025 to 26/07/2025	1. *Sarvanga Abhyanga* (oil massage) with *Brihat Saindhavadi Taila*, followed by *Dashamoola Parisheka* (pouring of medicated liquids). 2. *Janu Basti* (oil pool at knee joint) with *Mahavishagarbha Taila.* 3. Physiotherapy.	Pain, swelling, and subjective parameters improved. **Kujala score: 65/100.**
21/7/25, 23/7/25 & 25/7/25	*Erandamoola Niruha Basti.*	Pain and swelling were reduced. Pain assessment was done according to VAS scale [5] : 21/7/25 – VAS Scale 9 26/7/25 – VAS Scale 5
20/7/25, 22/7/25, 24/7/25 & 26/7/25	*Matra Basti* (medicated oil enema) with *Dhanwantari Taila* (60 ml).	
21/07/2025 to 26/07/2025.	*Agnikarma* (cauterization) Site : around the left knee most pain areas were selected (5 points) *Shalaka: Suvarna Shalaka* (Gold)	
20/07/2025 to 26/07/2025.	*Dashanga Lepa* on left knee (topical application).[6] Contents: *Shirisha,Yastimadhu, Tagara, RaktaChandana,Ela,Jatamamsi,Haridra,Daruharidra,Kushta,Ushira.*	Swelling was reduced. On 20/7/25 : Above knee – 50 cm, Knee joint – 44 cm, Below knee joint – 38.5 cm. 26/7/2025 : Above knee –48.5 cm, Knee joint – 43.5 cm, Below knee joint – 37 cm
26/07/2025 to 04/09/2025	Follow-up (40th day)	**Kujala score: 76/100**.
04/09/2025 to 14/10/2025	Follow-up (80th day)	Pain, swelling were reduced **Kujala-score – 90/100**

Shamanoushadi

Medicine	**Dose and *Anupana***	**Duration**
1.Cap *Gandha Taila* [7]	2–0–0, before food, orally with water (Vaidyaratnam; Batch no – 25A0715).	80 days
2.Cap *Nuro XT*	1–0–1, after food, orally with water (Green Remedies; Batch no– NXT113). [10]	80 days
3.Cap *Nilflame*	1–1–1, after food, orally with water (Arogya Pharma; Batch no – 01).	80 days
4.Dashanga Lepa	for external application once daily.	80 days

Follow-up and outcomes:

The patient was observed closely throughout the treatment period, with evaluations conducted on the day of admission, the 7th day, 40th day and 80th day (Table no 2).

Adherence, tolerance and adverse events:

Adherence to treatment was assessed by daily in patient supervision during admission. After discharge from the hospital, adherence was assessed by self-reporting, and pill count method at follow-up visits on the 40th and 80th

days. The patient followed the advised *Panchakarma*, *Agnikarma*, and oral medications with good adherence. Tolerability was assessed in terms of the absence of discomfort such as drug intolerance, gastrointestinal upset, or exacerbation of symptoms. All treatments, including *Basti*, *Raktamokshana*, and *Agnikarma*, were well tolerated without any interruption in the treatment plan, and no adverse reactions were observed during the study period.

Table No 3: Kujala Scale for Chondromalacia patella

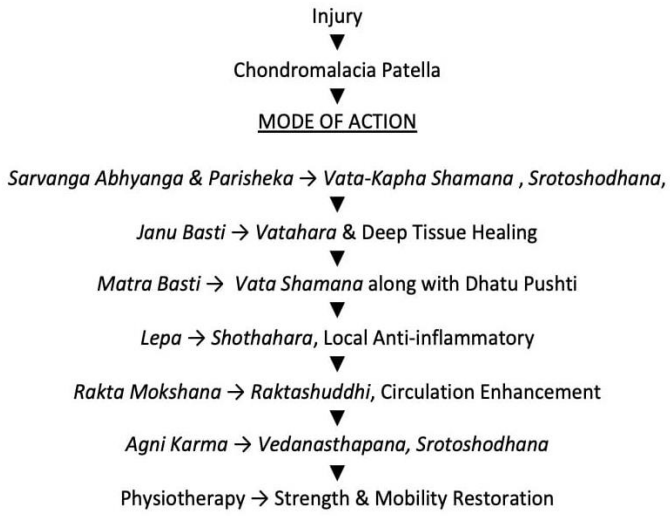
Parameter	**Options (with scores)**	**Baseline**	**AT (7^{th} day)**	**40^{th} day**	**80^{th} day**
Limp	None -5 ; Slight - 3 ; Constant – 0	3	3	3	5
Support	None – 5 ; For long walks - 3 ; Constant – 0	3	5	5	5
Walking	Unlimited - 5 ; >2 km – 3 ; 1–2 km - 2 ; <1 km – 0	0	2	2	3
Stairs	No difficulty 10 ; Slight 8 ; One step at a time 5; Using handrail 2 ; Unable 0	5	8	8	10
Squatting	No difficulty 5 ; Slight 4; With pain 2 ; Unable 0	0	2	2	4
Running	No difficulty 10 ; Slight 8; Severe 5 ; Unable 0	0	5	5	5
Jumping	No difficulty 10 ; Slight 8; Severe 5 ; Unable 0	0	0	5	8
Prolonged sitting with knees flexed	No difficulty 10 ; Slight 8 ; Severe 5 ; Unable 0	5	8	10	10
Pain	None 10 ; Occasional, mild 8 ; Daily activities 6 ; Marked, continuous 3 ; Severe, constant 0	6	8	8	10
Swelling	None 10 ; Severe exertion 8 ; Ordinary exertion 6 ; Constant 4 ; Severe, constant 0	4	8	8	10
Patellar movement (subluxation/dislocation)	None 10 ; Occasional 6 ; Frequent 2; Always 0	6	6	10	10
Thigh muscle atrophy	None 5 ; Slight 3 ; Severe 0	5	5	5	5
Flexion deficiency	None 5 ; Slight <15° 3 ; Severe >15° 0	0	5	5	5
Total Score	**Maximum = 100**	**36 / 100**	**65/ 100**	**76/ 100**	**90/ 100**
Interpretation: 95–100 → Excellent 85–94 → Good 65–84 → Fair <65 → Poor		According to the Kujala scale: Before treatment: 36 = Poor After treatment (7^{th} day): 65 = Fair After Follow-up (40^{th} day): 76 = Good After Follow-up (80^{th} day): 90 = Good			

3. DISCUSSION

Grade I (softening) to Grade IV are the stages of chondromalacia patellae (CMP). Marked pain, crepitus, and loss of function are typical symptoms of Grade IV. Injury to knee, can compromise knee stability and function, often requiring surgical intervention and rehabilitation to restore optimal joint function.[8] From the Ayurvedic perspective, CMP is most accurately characterized as *Janu Sandhigata Vata*, where vitiated *Vata Dosha* enters the *Sandhi* (joint), producing *Shoola* (pain), *Shotha* (swelling), *Stambha* (stiffness), and *Akunchana–Prasaranajanya Vedana* (pain during flexion and extension). The *Samprapti* in this case involved *Abhighataja* (trauma-induced) as the precipitating cause, producing local aggregation of *Vata*, depletion of *Asthi* and *Mamsa Dhatu*, along with their *Upadhatu* (*Sira* and *Kandara*). The affected *Srotas* were *Rakta* and *Mamsavaha Srotas*, with *Sanga* as *Srotodusti*. The disease follows the *Abhyantara Roga Marga* (internal disease pathway) and is categorized as *Krichra Sadhya Vyadhi* (difficult-to-cure disease). [9]

The administration of *Basti* was most important, as it is considered the best treatment for *Vata* disorders. [10] Therefore, *Niruha Basti* was planned and administered according to the *Yoga Basti* pattern, necessitating a seven-day hospital stay. As the patient complains of pain and mild swelling over the knee joint *Raktamokshana* was performed on first day to remove the vitiated *Rakta* and also as the patient had *Alpa Satwa and shareera bala* (low mental strength and physical strength), the quantity of *Kashaya* in the *Niruha Basti* was reduced, which exerted both systemic and local effects on joint health. *Agnikarma* using *Suvarna Shalaka* (gold probe) also played an important role in pain management and reduction of inflammation [11] (Table 2). Clinically, the patient experienced relief from pain and stiffness, reduction in swelling, and considerable improvement in the range of motion.

Mode of Action:



Limitations:

This case study of chondromalacia patella demonstrated notable results with the Ayurvedic treatment protocol. However, lack of long-term follow-up visits and improper adherence to medications and lifestyle modifications may potentially worsen the condition. Post-treatment imaging (MRI) was not performed, as the patient was asymptomatic and had no further complaints.

Mode of action of drugs

Gandha Taila as described by *Acharya Sushruta* and *Vagbhata*, is primarily used to enhance *Asthi Dhatu* (bone strength). It possesses *Vatahara*, *Brimhana*, and *Asthidhatu Vardhaka* properties. Important ingredients include *Tila*, cow milk, *Madhuka*, and other herbs and

minerals. This formulation acts on *Asthi Dhatu* and balances *Vata Dosha*, which is responsible for bone loss and associated pain. *Gandha Taila* also helps strengthen bones and alleviate *Vata*. [12] Cap Nilflame contains *Guduchi*, *Erandamoola*, *Vaishwanara Churna*, and *Dashamoola Churna*, which exert *Vata Shamana* (pacification of *Vata*) and *Shothahara* (anti-inflammatory) effects. *Guduchi* has anti-inflammatory and immunomodulatory properties. *Erandamoola* acts as an analgesic and pacifies *Vata*. *Vaishwanara Churna* functions as *Agni Deepana* and alleviates *Ama*, thereby reducing pain and stiffness, while *Dashamoola* reduces inflammation and supports tissue healing. Cap Nuro XT contains *Ekangaveera Rasa* as its main ingredient, which possesses *Brimhana* and *Rasayana* properties. It helps mitigate *Vata Dosha* and relieves pain. [13]

4. CONCLUSION

This case illustrates that a comprehensive *Ayurvedic* protocol with Snehana, *Basti*, *Agnikarma*, and *Shamana Aushadhi* can produce symptomatic and functional improvement in Grade IV chondromalacia patella, which is characterized by cartilage loss with exposure of subchondral bone and is uncommon. Within eighty days of treatment the patient achieved complete pain relief, reduction in swelling and stiffness, and restoration of functional mobility, thereby avoiding the need for surgical intervention. This case highlights the unique role of Ayurveda in managing chondromalacia patella. This integrative Ayurvedic protocol demonstrated observable functional improvement even in Grade IV, emphasizing its therapeutic potential in degenerative knee disorders. Further research, including randomized controlled trials with larger sample sizes and extended follow-up periods, is required to validate these findings and establish standardized Ayurvedic treatment protocols for advanced chondromalacia and similar degenerative joint disorders.

Declaration of Patient Consent – The authors confirm that they have acquired a patient consent form, in which the patient or caregiver has granted permission for the publication of the case, including accompanying images and other clinical details, in the journal. The patient or caregiver acknowledges that their name and initials will not be disclosed, and sincere attempts will be undertaken to safeguard their identity. However, complete anonymity cannot be assured.

Patient perspective - The patient initially visited an allopathic hospital, where surgical intervention was advised. However, she was unwilling to undergo surgery. Due to knee joint pain, she was unable to perform daily activities and experienced difficulty climbing stairs. After admission and follow-up at the Ayurvedic hospital, she expressed satisfaction with the treatment and showed excellent recovery.

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The authors declare this manuscript was written without the use of generative artificial intelligence tools. All the content, including text generation, data analysis and references was developed and reviewed by the author without assistance from AI technologies.

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REFERENCES:

1. Gray C. Chondromalacia patellae. British Medical Journal. 1948;1(4548):427–430. Available from: https://doi.org/10.1136/bmj.1.4548.427.
2. Habusta SF, Coffey R, Ponnarasu S, Mabrouk A, Griffin EE. Chondromalacia Patella. In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing; 2025. Available from: https://europepmc.org/article/NBK/nbk459195
3. Yadavaji Trikamaji, editor. *Madhava Nidana (Roga Viniscaya)* with Madhukosha Commentary by Vijayaraksita and Srikanthadatta. Chapter 22, verse no. 23. Reprint edition. Varanasi: Chaukhambha Sanskrit Sansthan; 2015;484–486.
4. Kujala UM, Jaakkola LH, Koskinen SK, Taimela S, Hurme M, Nelimarkka O. Scoring of patellofemoral disorders. *Arthroscopy*. 1993;9(2):159–163. Available from: https://doi.org/10.1016/S0749-8063(05)80366-4.
5. Heller GZ, Manuguerra M, Chow R. How to analyze the visual analogue scale: myths, truths and clinical relevance. *Scandinavian Journal of Pain.* 2016;13(1):67–75. Available from: https://doi.org/10.1016/j.sjpain.2016.06.012.
6. Meena N, Vashishtha V, Singh V. Review on Dashanga Lepa: an anti-inflammatory formulation. *J Ayurveda Holist Med* [Internet]. 2023;11(9). Available from: https://www.jahm.co.in/index.php/jahm/article/view/1058.
7. Paradkar VH, editor. *Astanga Hridaya of Vagbhata*, Uttarasthana. Chapter 27, verse no. 41. Reprint edition. Varanasi: Chaukhambha Krishnadas Academy; 2000;876.
8. Yadavaji Trikamaji, editor. Commentary: *Ayurveda Deepika of Chakrapani on Charaka Samhita of Charaka*, Chikitsasthana. Chapter 28, verse no. 43. Reprint edition. Varanasi: Chaukhambha Sanskrit Sansthan; 2015;620.
9. Yadavaji Trikamaji, editor. *Madhava Nidana (Roga Viniscaya)* with Madhukosha Commentary by Vijayaraksita and Srikanthadatta. Chapter 22, verse no. 28. Reprint edition. Varanasi: Chaukhambha Sanskrit Sansthan; 2015;484–486
10. Yadavaji Trikamaji, editor. Commentary: *Ayurveda Deepika of Chakrapani on ka Samhita of Charaka*, Chikitsasthana. Chapter 28, verse no. 34. Reprint edition. Varanasi: Chaukhambha Sanskrit Sansthan; 2015;683–684.
11. Rathod NA, Kuchewar VV. Review on role of Agnikarma in pain of various musculoskeletal disorders. *Journal of Indian System of Medicine*. 2019 Jan–Mar;7(1):43–46. Available from: https://doi.org/10.4103/JISM.JISM_7_19.
12. Gamne R, Wajpeyi SM, Mandal S, Rai M. Management of Lumbar Canal Stenosis (Katigraha) with Ayurvedic modalities: A case report. *Journal of Pharmacology and Pharmacotherapeutics*. 2025;0(0). Available from: https://doi.org/10.1177/0976500X251319833.
13. Pavan HR, Banu S, Lohit BA, Laxmi LL. Ayurvedic management of cervico-lumbar spondylosis (Khalli) – A case report. *Journal of Ayurveda and Integrative Medical Sciences*. 2025 Jun;10(4):310–315. Available from: https://doi.org/10.21760/jaims.10.4.47