EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES
http://www.ejbps.com

ISSN 2349-8870
Coden USA: EJBPBO
Volume: 13
Issue: 11
Year: 2026

INTEGRATIVE MANAGEMENT OF ANKYLOSING SPONDYLITIS: AN AYURVEDIC CASE STUDY

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DOI: https://doi.org/10.5281/zenodo.23804806

How to cite this Article: [1]Dr. Sahil Sk, [1]Dr. Shuvendu Maji, [1]Dr. Animesh Kr. Das, [1]Dr. Piu Hansda, [2*]Dr. Sayantan Bera (2026). Integrative Management Of Ankylosing Spondylitis: An Ayurvedic Case Study. European Journal of Biomedical and Pharmaceutical Sciences, 13(11), 181–184.
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Article Received on 26/09/2026 **Article Revised on 17/10/2026** **Article Published on 01/11/2026**

ABSTRACT

Background: Dandaka Roga is an Ayurvedic clinical presentation associated with stiffness, pain, restricted movement and musculoskeletal functional impairment. The clinical features of inflammatory axial and peripheral arthropathies may overlap with this presentation, although an Ayurvedic clinical correlation is not an exact biomedical equivalent. **Case Presentation:** An 11-year-old male patient with documented enthesitis-related juvenile idiopathic arthritis (ER-JIA), HLA-B27 positive, axial and peripheral arthritis, right hip arthritis and enthesitis presented with knee pain/swelling and bilateral ankle swelling. Previous treatment included conventional rheumatological medicines. Early sacroiliitis had been reported on MRI, and the case was clinically correlated with Dandaka Roga. Intervention and Outcome: The patient received Mahatikta Ghrita Snehapana in an escalating dose of 10, 20, 30, 50, 70 and 100 mL over six days, followed by Virechana with Trivrit Avaleha. After Samsarjana Karma, a 16-day Kala Basti schedule was administered using Dashamula Niruha Basti (approx. 200 mL) and Dhanwantara Taila Anuvasana Basti (50 mL). Symptomatic improvement was reported in musculoskeletal pain, stiffness, joint discomfort and functional symptoms. **Conclusion:** This case documents the application of a sequential Panchakarma protocol in a child with ER-JIA clinically correlated with Dandaka Roga. The available record supports a description of symptomatic improvement only. Controlled studies are needed to evaluate safety and effectiveness.

KEYWORDS: Dandaka Roga, Ankylosing spondylitis, HLA-B27, Virechana, Dashamula Niruha Basti; Panchakarma.

1. INTRODUCTION

Inflammatory musculoskeletal disorders[1] involving the axial skeleton, peripheral joints and entheses may lead to pain, stiffness, restricted mobility and functional impairment. Juvenile inflammatory arthropathies can involve the peripheral joints, axial skeleton and entheses, and HLA-B27 positivity is associated with a subset of juvenile spondyloarthropathies.

The supplied case records a diagnosis of enthesitis-related juvenile idiopathic arthritis (ER-JIA) with HLA-B27 positivity[2], axial and peripheral arthritis, right hip involvement and enthesitis. Early sacroiliitis was reported on MRI. From the Ayurvedic perspective, the features of pain, stiffness and restricted movement were clinically correlated with Dandaka Roga, with Vata considered predominant. The treatment sequence comprised Snehapana, Virechana, Samsarjana Karma and Basti.[3]

2. CASE REPORT

2.1 Patient Profile

February 7, 2026 (On the day of Hospital visit)

Table -1 (Showing patient detais).

Parameter	Details
Age	11 years
Sex	Male
Body weight	33 kg
Documented modern diagnosis	Enthesitis-related juvenile idiopathic arthritis (ER-JIA)
HLA-B27	Positive
Disease pattern	Axial and peripheral arthritis
Hip involvement	Right hip arthritis
Enthesitis	Present
Ayurvedic clinical correlation	Dandaka Roga
Treatment setting	Panchakarma OPD/IPD
Institute	IPGAE&R, Kolkata

2.2 History of Present Illness

According to the available records, the patient had been diagnosed with ER-JIA withHLA-B27-positive axial and peripheral arthritis with enthesitis approximately 3.5 years before the documented admission. Previous management included methotrexate, sulfasalazine, NSAIDs and later tofacitinib. Tofacitinib was stopped after the development of molluscum contagiosum. The records also described a history suggestive of NSAID-associated peptic ulcer. MRI findings were reported as showing early sacroiliitis. At presentation, the principal musculoskeletal complaints included knee pain/swelling and ankle swelling with persistent inflammatory joint symptoms.

2.3 Chief Complaints

- Right knee pain and swelling for approximately four months.
- History of fever with chills.
- History of right knee arthrotomy following septic knee.
- Bilateral ankle swelling for approximately three months.
- Left knee swelling for approximately 2.5 months.

2.4 Past and Family History

The past history included ER-JIA for approximately 3.5 years, HLA-B27 positivity, axial and peripheral arthritis, right hip arthritis and enthesitis. The patient had previously received disease-modifying antirheumatic drugs and NSAIDs. The supplied record noted a family history of similar disease in close family members.

2.5 General and Systemic Examination

The available record described the patient as alert, conscious and oriented, and afebrile at examination. Pulse was approximately 80/min and blood pressure approximately 110/74 mmHg. Chest examination was clear; cardiovascular examination revealed S1 and S2 without murmur; and the abdomen was soft and non-tender. Molluscum contagiosum lesions were noted on the face.

2.6 Musculoskeletal Examination

The record documented peripheral joint and enthesitic involvement, including right ankle involvement, axial/sacroiliac involvement, right hip involvement and enthesitis. FABER-related findings were recorded on the right side. Enthesitis was noted around the left medial femoral condyle/PSIS region. Disease activity indices in the rheumatology document included BASDAI 5 and ASDAS-CRP 3.5.

3. Investigations

Table – 2 (Showing Laboratory investigations).

Investigation	Result
Haemoglobin	11.1 g/dL
Total leukocyte count	7,200/cumm
Differential leukocyte count	N60 L34
Platelet count	2.91 lakh/cumm
Total bilirubin	0.5 mg/dL
Total protein	7.8 g/dL
Albumin	4.6 g/dL
ALP	161 U/L
SGPT	15 U/L
SGOT	21 U/L

Sodium/Potassium	134/4.3
Calcium/Phosphorus	9.9/3.4
Urea	24 mg/dL
Creatinine	0.6 mg/dL
Uric acid	2.1 mg/dL
CRP	1.82 mg/L (reference shown: <0.3)
Cholesterol/LDL/HDL/TG	222/175/35/116 mg/dL
Ferritin	23
Iron/TIBC	24/356
Mantoux	Negative
HIV	Non-reactive
HBsAg/HCV	Non-reactive/Non-reactive

4. Ayurvedic Assessment

Table -3 (Showing Ayurvedic assessment).

Ayurvedic parameter	Assessment as recorded
Roga	Dandaka Roga
Predominant Dosha	Vata
Associated Dosha	Kapha/Pitta involvement considered clinically
Dushya	Asthi, Majja, Mamsa and Snayu
Srotas	Asthivaha/Majjavaha and related musculoskeletal channels
Srotodushti	Sanga/functional impairment
Roga Marga	Madhyama Roga Marga
Chronicity	Chronic
Clinical features	Shoola, Stambha, Sandhi involvement and restricted movement
Treatment principle	Shodhana followed by Vata-pacifying Basti

5. Treatment Protocol

5.1 Snehapana with Mahatikta Ghrita

Internal Snehana was performed using Mahatikta Ghrita. The dose was progressively increased according to tolerance and clinical assessment.

Table – 4 (Showing Snehapana dosage pattern).

Day	Mahatikta Ghrita dose
Day 1	10 mL
Day 2	20 mL
Day 3	30 mL
Day 4	50 mL
Day 5	70 mL
Day 6	100 mL

5.2 Virechana Karma

After completion of Snehapana and appropriate preparation during Vishrama kala for three days, Virechana Karma was performed using Trivrit Avaleha under supervision with appropriate monitoring. Samsarjana Karma was advised following Virechana according to the clinical requirement and adequacy of Shodhana.

5.3 Basti Karma

After completion of seven days of Samsarjana Karma, Basti therapy was initiated in a Kala Basti schedule for 16 days.

Table – 5: (Showing Basti schedule).

Type	Drug	Quantity	Duration
Niruha Basti	Dashamula Niruha Basti	Approx. 200 mL	As per Kala Basti schedule (6 days)
Anuvasana Basti	Dhanwantara Taila	50 mL	As per Kala Basti schedule (10 days)

6. Treatment Flow

Assessment → Preparatory measures → Mahatikta Ghrita Snehapana (10, 20, 30, 50, 70 and 100 mL over six days) → Trivrit Avaleha Virechana → Samsarjana Karma → 15-day Kala Basti schedule with Dashamula Kwatha Niruha Basti (Approx. 200 mL) and Dhanwantara Taila Anuvasana Basti (50 mL) → Reassessment.

7. Outcome

Following completion of the Panchakarma protocol, symptomatic improvement was reported, particularly in musculoskeletal pain, stiffness, joint-related discomfort and functional symptoms.

8. DISCUSSION

The case concerns a chronic inflammatory musculoskeletal disorder with axial and peripheral manifestations. The documented modern diagnosis was ER-JIA with HLA-B27 positivity, right hip arthritis and enthesitis, with early sacroiliitis reported on MRI. The clinical correlation with Dandaka Roga was made from the Ayurvedic perspective on pain, stiffness, restricted movement and musculoskeletal involvement.

Mahatikta Ghrita Snehapana was administered as a preparatory measure before Virechana. Trivrit Avaleha was used for Virechana, followed by Samsarjana Karma. A 16 day Kala Basti schedule incorporated Dashamula Kwatha Niruha Basti and Dhanwantara Taila Anuvasana Basti, selected with the therapeutic objective of addressing Vata-predominant musculoskeletal symptoms.

Symptomatic improvement was reported after the intervention, but the available case information does not establish causality or efficacy. This was an uncontrolled single-patient observation, prior conventional treatment was substantial, and standardized post-treatment disease-activity scores were not provided. The patient's age and complex history, including prior septic knee and a history suggestive of NSAID-associated gastrointestinal complications, make careful specialist oversight and clear reporting of concurrent treatment particularly important. This case should not be interpreted as a basis for stopping or replacing evidence-based rheumatological care.

9. Proposed Ayurvedic Conceptual Framework

Vata aggravation with possible Ama/associated Dosha involvement → Srotorodha or functional impairment → involvement of Sandhi, Asthi, Majja and Snayu → Shoola, Stambha and restricted movement → functional disability. Therapeutic sequence recorded: Snehapana → Virechana → Samsarjana Karma → Basti → reassessment of symptoms and function.

10. Clinical Significance

1. The patient had documented ER-JIA with HLA-B27 positivity and axial/peripheral involvement.
2. Right hip arthritis and enthesitis were recorded; early sacroiliitis was reported on MRI.
3. A structured Panchakarma protocol of Snehapana, Virechana and subsequent Kala Basti was undertaken.
4. Symptomatic improvement was reported after the treatment course.
5. Objective post-treatment disease activity and long-term outcomes were not available in the supplied record.

11. Limitations

- Single-patient observation without a control group.
- No blinding.
- Limited standardized pre- and post-treatment outcome measurements were available.
- Previous and/or concurrent conventional rheumatological treatment makes attribution of improvement solely to Panchakarma difficult.

Accordingly, this case should be considered hypothesis-generating rather than definitive evidence of efficacy.

12. CONCLUSION

This case documents the clinical application of Mahatikta Ghrita Snehapana, Trivrit Avaleha Virechana and subsequent Kala Basti using Dashamula Kwatha Niruha Basti and Dhanwantara Taila Anuvasana Basti in an 11-year-old patient with HLA-B27-positive ER-JIA clinically correlated with Dandaka Roga. Symptomatic improvement was reported after intervention. Further prospective studies with standardized disease-activity scores, inflammatory biomarkers, functional assessments, safety reporting and long-term follow-up are required to evaluate the therapeutic role of this approach.

13. Informed Consent

Informed consent was obtained from the patient.

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