RESEARCH PAPER

Clinical Efficacy of Ayurvedic Treatment Protocol in the Management of Trika-Kati- Prishta Graha (Ankylosing Spondylitis): A Single Case Study

Dr.Chandana K[1*], Dr.A S Prashanth[2], Dr. Md Mohammed Yaseen Hullur[3]

[1]Dr.Chandana K,Final Year PG Scholar, Department of Kayachikitsa, Ayurveda Mahavidyalaya and Hospital ,Hubballi*

[2]Dr.A S Prashanth, Professor and Principal, Department of Kayachikitsa, Ayurveda Mahavidyalaya and Hospital, Hubballi

[3]Dr.Md Mohammed Yaseen Hullur, Assistant Professor, Department of Kayachikitsa, Ayurveda Mahavidyalaya and Hospital, Hubballi

Corresponding Author

Dr.Chandana K

Dr.Chandana K,Final Year PG Scholar, Department of Kayachikitsa, Ayurveda Mahavidyalaya and Hospital, Hubballi

ABSTRACT

Ankylosing spondylitis is a chronic inflammatory seronegative spondyloarthropathy predominantly affecting the sacroiliac joints and the axial spine, leading to progressive low back pain, stiffness, postural deformity, and restricted mobility, which greatly impair ambulation and quality of life. In Ayurveda, this clinical presentation can be understood as Trika-Kati-Prishta Graha, a Vata-Kapha-predominant disorder associated with Ama, characterized by pain (shoola), stiffness (stambha), and limited spinal movement. A 27-year-old male patient approached Ayurveda Mahavidyalaya and Hospital, Hubli, with complaints of persistent stiffness and pain in the lower back and bilateral groin region, hunching with right kyphoscoliosis, and difficulty in walking for 10 years; HLA-B27 test was positive. The patient was managed with an Ayurveda Treatment protocol comprising Deepana–Pachana with Shaddharana Yoga, Valuka Sweda, and Mridu Virechana with Eranda Taila Bharjita Vartaka, followed by Dwatrimshaka Guggulu for 45 days. Significant clinical improvement in pain, stiffness, spinal mobility, and general well-being was observed. This case shows the potential of Ayurvedic Principles and Practice in managing Ankylosing Spondylitis through tackling the condition's root cause and supporting a holistic healing approach.

Keywords Ankylosing spondylitis, Trika - Kati - Prishta Graha, Ayurveda, Samavata, Case study.

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INTRODUCTION

Ambulation is one of the most important functions of vertebrates. Flexibility of Skeletal structures plays a major role in ambulation and all motor functions.

Ankylosing Spondylitis is an obscure spinal condition in the era of technological development and sedentary lifestyles. Most of the time, it seeks medical attention only after pain and stiffness become persistent. In addition to Pain and Stiffness, Fatigue, Postural disability, and sleep problems are important concerns in patients with Ankylosing Spondylitis, causing physical and mental stress.

Ankylosing Spondylitis, a type of Seronegative Spondyloarthropathy1, is a Chronic Inflammatory Autoimmune Disease that mainly involves the spine joints, Sacroiliac and hip joints, and other adjacent soft tissues, such as Tendons and Ligaments. In more advanced cases, this inflammation can lead to Fibrosis and calcification, resulting in loss of flexibility and spinal fusion, resembling a “Bamboo” with an immobile posture.2

This disease usually begins in the second or third decade of life. Men are affected 3times more than women. Prevalence data from the first Indian Community Oriented Program for Control of Rheumatic Disease (COPCORD) Survey showed a rural prevalence of back pain of 17.3%. Among those, Ankylosing Spondylitis is likely to be about 0.2% 3. Mean Ankylosing Spondylitis prevalence per 10,000 was 16.7 in Asia4, and 9.8 in India5. As an Autoimmune Disease, Ankylosing Spondylitis develops through a complex connection between genetic background and environmental elements. Immune cells and innate cytokines have been suggested to be fundamental in the pathogenesis of Ankylosing Spondylitis; among the most important genetic factors are the Major Histocompatibility Complex (MHC) Class 1 allele HLA-B27 (Human Leukocyte Antigen) and the Interleukin-23/17 axis. However, the exact pathogenesis or the role of cartilage and synovial autoantigens in Ankylosing Spondylitis remains unclear.

Ankylosing Spondylitis is not explained independently in Ayurveda. Though there is no direct reference, based on the stage of expression, symptoms can be traced clinically as Katishoola, Katigraha, Trika kati Prishta graha, Samavata, etc. This disease, when considered in a broad spectrum, comes under Vataja vikara.

Ankylosing Spondylitis is a pain and stiffness-predominant condition. Pain is the prime feature of Vata dosha, as clearly stated in the verse “Vata Rute Nasthi Rujam.”6 other features, like Stambha, are due to Vata-Kapha dosha, and Gourava is due to Kapha dosha.

Inflammatory signs such as enthesitis are due to Pitta Dosha involvement. So the involvement of all three de-arranged doshas is found in Ankylosing Spondylitis.

In Ayurveda, Ankylosing Spondylitis, being an autoimmune disease, can be understood as Amapradhana vyadhi.

As Ayurveda clearly quotes "Rogah Sarvepi Mandagnou"7. Improper digestive fire is the prime factor for the manifestation of almost all diseases. An improper lifestyle and various unsuitable dietary habits can lead to mandagni, resulting in undigested material that circulates in the body. These substances are called Ama, an endotoxin produced due to impaired agni. During circulation, when it finds a suitable place to lodge, it affects that part and results in disease formation. Such diseases are called Samaroga.

Ankylosing Spondylitis clearly depicts the Samavata Lakshana8, such asAgnisada, Stambha (Stiffness), Vedana (Pain), Shopha (Swelling or Inflammation), and Angapeeda (Body ache), indicating the involvement of Ama in its pathogenesis.

The earliest stage of disease manifestation can be understood as Amashayagata Vata, whereinAma formed due to Mandagni accumulates within the Amashaya and associates with the Vata dosha. This pathological association serves as the basis for further disease evolution. Acharya Charaka explains the principle of site-specific management of Ama, noting that when Ama remains localized within bodily tissues, Langhana and Pachana therapies are appropriate, whereas Ama situated in the Amashaya requiresShodana measures such as Vamana and Virechana. Hence, in pathological conditions dominated by Amashayagata Sama Vata, correcting Agni through Agnideepana and Amapachana is an imperative preliminary intervention.

With the progression of the disease, Ama associated with Vata localizes in the Sandhi, Asthi, and Majja dhatus, which are considered the principal seats of Vata dosha.

According to Yogaratnakara9, ama with excessively vitiated Vata-kapha dosha enters the Trika Sandhi, i.e., the sites of kha-vaigunya, producing Sandishoola, Sandhishotha, and finally leading to Stabdhata of the body.

Subsequently, owing to the Chalaguna of Vata, the pathological process extends to involve the Kati and Prishta pradesha, producing a distinctive clinical pattern characterized by pain, stiffness, and progressive restriction of spinal movements. This axial pattern of involvement is described in Ayurveda as Trika-Kati-Prishta graha.

The gradual spread of pathology from the Sacro-illiac region to the lumbar and thoracic spine represents a clinically significant pattern commonly observed in chronic Sama Vataja conditions involving Asthi-Majja dhatu. The predominance of stiffness, pain, and limited movement in these regions illustrates the relevance of the Trika-Kati-Prishta graha as a conceptual scheme for understanding chronic inflammatory disorders of the axial skeleton.

Contemporary science treats early-stage disease with pharmaceuticals such as Anti-Inflammatory Analgesics, Steroid Injections, TNF blockers, DMARDs10, and so on, but these treatments have various side effects and should not be used for extended periods. When symptoms are moderately severe or more, surgery is advised, especially if they interfere with the patient's ability to engage in daily activities. However, none of these delivers satisfactory outcomes. Despite much research and the discovery of some remedies in Modern Science, many queries about drugs and their complications remain unanswered. To avoid these negative consequences, an attempt is made to deliver satisfactory outcomes for individuals with Ankylosing Spondylitis through Ayurvedic treatment modalities.

Considering this pathological background - where Amashayagata Vata forms the initiating factor and subsequent localization of Sama Vata occurs in the Trika, Kati, and Prishta pradesha - it becomes imperative to address Ama at its origin.

On this basis, considering the involvement of Vata, Kapha, Pradhana, Tridosha, and Ama, Deepana, Pachana, Rookshana Chikitsa was adopted as the first-line treatment, followed by Mridu Virechana with Eranda Taila Bharjitha Vartakato to facilitate Niramavastha,along with Dwatrimshaka Guggulu as Shamanoushadi.

Case History :

Chief Complaint : C/o persistent stiffness and pain in the lower back and both groin regions for 10 years.

Associated Complaint : Hunching with right kyphoscoliosis and difficulty in walking for 10 years.

History of Main Complaint: A 27-year-old male with no known comorbidities such as diabetes mellitus, hypertension, thyroid dysfunction, asthma, or history of viral fever, was reportedly healthy ten years prior. He initially noted mild stiffness and pain localized to the lower back, which he disregarded. Over time, these symptoms gradually intensified, manifesting as persistent pain and stiffness that extended to the bilateral groin region and resulting in increasing difficulty with ambulation. The patient also began noticing progressive spinal deformity, specifically abnormal spinal curvature with a pronounced hunch, leading to a stooped posture. These musculoskeletal complaints evolved insidiously, increasing in duration and severity, with occasional aggravation on exertion and early morning stiffness lasting over an hour, which partially improved with activity and exposure to warmth. He denied any history of trauma, significant weight loss, fever, urinary or bowel disturbances, or involvement of peripheral joints. As the structural deformity became more pronounced and pain and stiffness started interfering with his daily activities, including occupational and domestic tasks, he sought further evaluation and management at our institution.

POORVA VYADHI VRITTANTA : N/K/C/O DM,HTN,Thyroid Dysfunction,Asthma

Kula Vrittanta: Both sisters and the father have the same complaints and are positive on the HLA-B27 gene test
Vaiyaktika Vrittanta :.

Ahara:	Veg() Mixed(✓) Non-veg()
Dietary Habits:	Regular(✓) Irregular()
Ahara Vidhi:	Samashana() Adhyashana()Vishamasana(✓) Viruddhashana()
Gunapradhanata:	Guru() Laghu(✓) Sheeta(✓) Ushna() Snigdha() Ruksha(✓) Tikshna() Mrudu()
Rasa Pradhanata:	Madhura(✓) Amla() Lavana() Katu() Tikta() Kashaya()
Ahara Pramana:	Heena() Madhyama(✓)Atimatra()
Agni:	Sama() Vishama(✓) Tikshna() Manda()
Kostha:	Mridu( ) Madhyama( ) Krura(✓)

Defecation:	Regular() Irregular(✓) Loose stool() Constipation(✓) Frequenc once times/day, Unsatisfied.
Vihara:	Divaswapna,Atiyana
Micturation:	Frequency 6-7 times/day 0 times/night
Quantity:	Alpa() Madhyama(✓) Bahu() Any Other Symptoms:
Sleep:	Sound() Distrubed(✓) Loss of sleep( ) Duration 1 hour in day 3-4 hours in night
Emotional Status:	Anxiety() Tension() Depression(✓) Sentimental ()
Vyasana:	Tea/Coffee() Smoking () Tobacco() Supari(✓) Alcohol()
Vyayama:	Light(✓) Heavy() Regular() Irregular()

Occupational History :

Nature of work:	Sitting/Sedentary(✓), Standing(), Heavy( ), Travelling(),Night duty(),Others() Works as table artist

Nature of Stress :	Mentally✓ Physically Both
Total working hours per day:	3-4hours

Samanya Pariksha (General Examination)

01	Raktachapa (BP)	120/90 mm of Hg
02	Nadigati (PR)	18/min
03	Dehosmata (Body Temp)	98.6 ˚F
04	Shwasagati (RR)	18/min
05	Shareeradhairgya(Height)	154.9 cm
06	ShareeraBhara (Weight)	46 Kgs.
07	BMI	19.2 kg/m²

08.	Pallor	Mildly Present
09.	Icterus	Absent
10.	Clubbing	Absent
11.	Lymphedenopathy	Absent
12.	Cynosis	Absent
13.	Edema	Absent

Ashta Sthana Pariksha

01	Nadi	18/minDosha Pradhana: Vata(✓) Pitta( ) Kapha( )
02	Mala	1/Day, 0/night ,Baddha mala
03	Mutra	Frequency: 6-7/Day, 0/Night
04	Jihwa	Liptata(✓) Aliptata()

05	Shabdha	Prakruta(✓) Vikruta()
06	Sparsha	Snigdha( ) Ruksha(✓) Ushna( ) Sheeta( )
07	Drik	Prakruta (✓) Drustimandya( ) Anya( )
08	Akriti	Krisha(✓) Madhyama( ) Sthoola( )

Dashavidha Pareeksha

01	Prakruti	V() P() K() VP(✓) VK() PK() Tridoshaja( )
02	Vikruti	Dosha
02	Vikruti	Dushya
02	Vikruti	Dushya
02	Vikruti	Dushya
03	Sara	Pravara() Madhyama() Avara(✓)
04	Samhanana	Pravara() Madhyama() Avara(✓)
05	Pramana	Pravara() Madhyama()Avara(✓)
06	Satmya	Pravara() Madhyama(✓)Avara()
07	Satva	Pravara() Madhyama(✓)Avara()
08	Ahara Shakti	a) Abhyavaharana shakti P() M(✓) A() b) Jaranashakti P() M(✓) A()
09	Vyayama Shakti	Pravara() Madhyama()Avara(✓)
10	Vaya	Bala(✓) Yuva() Vrudda()

Systemic Examination:

Respiratory system:	B/L NVBS - Heard Added Sounds - Nil
Cardiovascular system:	S1, S2- Heard Murmur- Absent
Gastro intestinal system:	Soft Tenderness - absent
Central Nervous System:	Conscious - Intact Oriented to time/Place and Person.

EXAMINATION OF THE LUMBOSACRAL REGION

Inspection

- Gait : Limping
- Swelling/Inflammation : Absent
- Local deformity : Right Kypho-Scoliosis.

Palpation

- Tenderness: Present in the lower back region.
- Local Temperature: Mildly elevated at the lower back.
- Palpation of swelling - Absent
- Palpation of deformity – Kyphoscoliotic deformity with posterior prominence (hunching) of the thoracolumbar spine

Movement of the Lumbar Spine

- Forward bending : Not painful.
- Backward bending : Not painful
- Lateral bending : Right, mildly painful

Special Tests

1.Modified Schober test (Lumbar mobility test) : Positive

2.SLR test : Right Leg – Negative, Left Leg – Negative

ROGA PARIKSHA

1.NIDANA:

Ahara

Ahara vidhi	Samashana( )Adhyashana( )Vishamashana(✓) viruddhashana( )Anashana( )others ( )
Gunapradhana	Guru( ) Laghu (✓) Sheeta (✓) Ushna (✓) Snigdha( ) Ruksha ( )
Rasapradhanata	Madhura (✓) Amla ( ) Lavana(✓)Katu( ) Tikta( ) Kashaya ( )

Vihara

Ratrijagarana ( ) Diwaswapna(✓)Ativyayama( ) Atiadhwagamana( ) Atibhara( )Vegadharana( ) Bending ( ) Abnormal body posture( ) Excessive travelling (✓)

2.Poorva Roopa: Pain and stiffness were mild ,10years back.

3.Roopa: Pain and stiffness associated with pain in the groin region and difficulty in walking. He also noticed that his back had gradually begun to curve abnormally, causing a hunched appearance and making him feel stooped.

4.Upashaya:

- Hot bath ✓
- Warm pack ✓
- Lumbar corset ✓

Manasika

Krodha ( )Shoka ( ) Kopa ( ) Chinta (✓) Due to pain and stiffness.

- Any abnormal postures✓

5. Anupasaya:

- Sheetala ahara-vihara aggravates pain and stiffness.
- Due to abnormal posture

6. SAMPRAPTI: Nidana SevanaAgnimandhyaVata-Kapha pradhana tridosha dushtiSthana Samshraya at trika pradesha Chala Guna vruddi of vata ,Gradual upward progression of condition with kati,prishta Graha,shuladi Lakshana

Samprapti Ghatakas:

Dosha	Vata Kapha pradhana tridosha
Dushya	Rasa,Asthi,Majja
Agni	Jataragni,Dhatvagni
Ama	Jataragnijanya,Dhatvagnijanya
Srotas	Rasavaha,Asthivaha,Majjavaha
Srotodushtiprakara	Sanga
Udbhavasthana	Amapakvashaya
Sancharavastha	Sarva sharira
Vyaktasthana	Trika ,kati,Prishta Bhaga
Rogamarga	Abhyantara and Madhyama rogamarga
Adhistana	Trika and Prishtavamsha sandhi
Vyadhiswabhava	Chirakari
Sadhyaasadyata	Asadhya

Vyadhi Bala : Pravara(✓)Madhyama ( ) Avara( )
INVESTIGATION
1.Routine : RA factor - Negative
CRP – 86mg/L
2.Special : X-ray A.P & Lateral view of whole spine,Sacroiliac and hip joints ,suggests Acute Bilateral Sacroillitis
-HLA-B27 Test - Positive

Chikitsa Krama:
Intervention

GROUP A

NO	PROCEDURE	DRUGS	DOSE	DAYS
1,	DEEPANA-PACHANA	Shaddharana yoga	5gms twice a day, Before food With ushnajala anupana	Until niramavastha.
2.	VALUKA SWEDA (1st Set)	Valuka	Quantity sufficient	Morning before food for 7 days
3.	VIRECHANA (1st Set)	Erandataila bharjitha vartaka.	2vartaka fried in 80-100ml of Erandataila in empty stomach	1day 5 vega
4.	VALUKA SWEDA (2nd Set)	Valuka	Quantity sufficient	Morning before food for 7 days
5.	VIRECHANA (2nd Set)	Erandataila bharjitha vartaka	3vartaka fried in 80-100ml of Erandataila in empty stomach	1day 6 vega
6.	SHAMANA AUSHADHI	DwatrimshakaGuggulu	500mg twice daily after food, sukoshnajalas anupana	45days

Assessment Criteria

Subjective Parameter

Lower back Pain

NO.	PAIN	VASCALE	GRADING	BT	Aftervalukasweda-1	After ETBV-1	After Valukasw	After ETBV-2	After Shamana Aoush	AT

							eda-2		adi	
1.	No Pain	0	0							
2.	Mild Pain ,doesn’tI	1-3	1							2

	nterferes with activities of daily living									
3.	Moderate Pain ,Interfers with activities of daily	4-6	2				5	5	4	

	living									
4.	Severe Pain , Markedly Interferes with activities of daily living	7-10	3	9	8	8				

Early morning stiffness duration

NO	EARLY MORNING STIFFNESS DURATION	GRADE	BT	Aftervalukasweda-1	After ETBV-1	After Valukasweda-2	After ETBV-2	After Shamana Aoushadi	AT
1.	No stiffness	0							
2.	0-5min	1						1-2	1-

								min	2 min
3.	5min-2hours	2	50-60 min	30-40 min	20-30 min	10-15 min	10-15 min		
4.	2hours-8hours	3							
5.	More than 8hours	4							

Objective Parameters

Modified Schober's test

MEASUREMENT	GRADING	BT	Aftervalukasweda-1	After ETBV-1	After Valukasweda-2	After ETBV-2	After Shamana Aoushadi	AT
More than or equal to 20cm	0							
17.6 - 20cm	1							
15.1-17.5cm	2	16.5cm	17cm	17.3cm	18cm	18.2cm	18.5cm	18.5cm
15cm(no change)	3							

Lumbar right lateral flexion

MEASUREMENT	GRADING	BT	Afterval ukaswe da-1	After ETBV-1	After Valukaswed a-2	After ETBV-2	After Shamana Aoushadi	AT
Able to touch ground	0							
Able to go up to ankle	1							
Able to go just belowknee	2		✓	✓	✓	✓	✓	✓
Not up to knee	3	✓						

3.Lumbar left lateral flexion :

MEASUREMENT	GRADING	BT	Aftervalukaswe da-1	After ETBV-1	After Valukaswed a-2	After ETBV-2	After Shamana Aoushadi	AT
Able to touch ground	0							
Able to go up to ankle	1							
Able to go just below knee	2		✓	✓	✓	✓	✓	✓
Not up to knee	3	✓						

3. Chest expansion :
Before Treatment :4cm
After Treatment :4.7cm

4.CRP : Before Treatment : 86mg/L
After Treatment : 40mg/L

OVERALL ASSESSMENT OF TREATMENT:

OVERALL ASSESSMENT	GRADE OF IMPROVEMENT
Moderate Relief	70% improvement

DISCUSSION :

Considering the involvement of Vata, Kapha, Pradhana, Tridosha, and Ama, Deepana, Pachana, Rookshana Chikitsa was adopted as the first-line treatment, followed by Mridu Virechana to facilitate Niramavastha, along with Shamana Aushadhi.

Shaddharana Yoga - 5 g twice daily before food with Ushnajalawas administered for Deepana–Pachana until Nirama Avastha.

This was followed by Valuka Sweda for 7 days, and Mridu Virechana using Eranda Taila Bharjita Vartaka (2–3 vartaka processed in 80–100 ml Eranda Taila). The same cycle was repeated, and finally Shamana therapy was given—Dwatrimshaka Guggulu—500 mg BD with Sukoshnajala in Group A, and Simhanada Guggulu—500 mg BD with Sukoshnajala in Group B — for 45 days.

- Shaddarana Yoga for Amapachana13

It is endowed with Tikta, Katu, and Kashaya rasa, Laghu and Ruksha guna, and Ushna virya, thereby rendering it effective in pacifying Vata-Kapha dosha, digesting Ama, and alleviating Srotorodha.By primarily acting at the level of the Amashaya, Shaddharana Yoga restores Jataragni, promotes effective Ama pachana, and prevents further accumulation of Ama in the Asthi and Majja dhatu. This enables the conversion of Sama avastha into Nirama avastha, thereby interrupting the pathological process underlying Trika-Kati-Prishta graha and fostering a conducive internal environment for subsequent clinical interventions.

• Probable Mode of Action of Valuka Sweda14,15,16

Valuka Sweda is a type of Ruksha Pinda Swedana, particularly indicated for Ama or Kapha-associated Vata conditions. In the Framework of Vatakaphaja Roga,Charaka Acharya Explained Pinda Sweda. This is a type of Swedana that falls under the category of Sankara (Pinda)Sweda. Valuka Sweda is indicated in Vatakaphaja Vyadhi,according to Chakrapanidatta.

It acts by relieving Stambha (stiffness), Shoola (pain), and Gourava (heaviness) - cardinal features of Ankylosing Spondylitis.

The Ruksha and Ushna Guna counteract Kapha and Ama, while the heat promotes Srotoshodhana and Vata anulomana. It liquefies adhered Doshas and facilitates their movement towards the Koshta for elimination. It additionally enhances tissue flexibility, consequently reducing spinal rigidity.

Modern correlation:

Valuka Sweda can be compared to dry heat therapy (thermotherapy).

This mechanism of action of Swedana will be discussed under the following headings:

A) Application of heat

B) Physical effect of massage.

A) Application of heat

The primary therapeutic benefits of any type of thermal therapy are related to increased circulation, local cellular metabolism, and muscle relaxation. Heat stimulates muscle and tendon relaxation, which improves blood supply and activates local metabolic processes that reduce pain and swelling.

B) Physical effect of massage.

It activates sensory nerve endings, causing relaxation. It has a hyperemic effect, causing arteriolar dilation and thereby increasing circulation. In addition, venous and lymphatic return is aided. Massage stimulates muscle activity, hence increasing blood supply and relieving physical weariness. Massage may promote exudate displacement, thereby relieving tension and pain.

Thus, it directly addresses the hallmark features of Ankylosing Spondylitis—pain and stiffness.

Eranda Taila Bharjitha Vartaka17

Mridu Virechana, using Eranda Taila Bharjita Vartaka, plays a dual role—Dosha Nirharana and Vata Shamana. Eranda Taila possesses Snigdha Guna and Ushna Veerya, rendering it ideal for Vatanulomana. It eliminates vitiated Doshas from Pakvashaya, the main seat of Vata, therewith reducingShoola, Stambha, and Graha.

Processing Vartaka in Eranda Taila improves its therapeutic properties through Sneha Samskara, reducing its Vata-aggravating effect and promoting mild purgation. This ensures safe and effective elimination without excessive depletion.

Modern explanation:

Eranda Taila (castor oil) contains ricinoleic acid, which has:

- Anti-inflammatory action
- Mild laxative effect → improved gut motility
- Reduction of systemic toxins (associated with Ama)
- Improved gut health may influence immune modulation (gut–joint axis), which is significant in Ankylosing Spondylitis.

Thus, Mridu Virechana not only eliminates Doshas but also reduces systemic inflammation and restores physiological balance.

Dwatrimshaka Guggulu18

It is a multi-ingredient herbo-mineral formulation indicated particularly in Daruna Ama avastha and chronic Vata - Kapha disorders. In the context of Trika – Kati - Prishta Graha, its therapeutic utility resides in its capacity to simultaneously address Ama and Vata, the principal pathological factors involved.

The formulation is mainly characterized by Katu-Tikta Rasa, Ushna Virya, Laghu, Ruksha, and Tikshna Guna, along with Katu Vipaka. Owing to these properties, it exhibits potent Deepana and Pachana actions, therewith enhancing Jataragni and aiding efficient digestion of ama. At the same time, it performs Srotoshodhana, relieves obstruction in the channels, and acts as a Vata-Kapha Shamaka, eventually reducing inflammation and alleviating pain and stiffness.

The presence of Trikatu (Shunti, Maricha, Pippali) is important in stimulating both Jataragni and Dhatvagni, therewith promoting proper metabolic transformation and preventing the further formation of ama. The inclusion of Kshara and Lavana dravyas such as Yava Kshara, Svarjika Kshara, and Saindhava Lavana contributes to Ama bhedana, reduces stambha (stiffness), and helps relieve srotorodha by clearing microchannels.

Guggulu, being the chief component, acts as a Yogavahi, supporting deeper penetration of the drug into tissues such as Asthi and Majja dhatu, while its Lekhana property helps reduce pathological deposits and chronic inflammatory accumulations. Thus, the formulation primarily acts at the level of Asthi–Majja dhatu, which is significantly involved in Ankylosing Spondylitis, and helps in converting Sama Vata into Nirama Vata, thereby interrupting the disease process.

From a modern perspective, Dwatrimshaka Guggulu exhibits marked anti-inflammatory activity, mostly attributed to guggulsterones, which inhibit inflammatory pathways, including NF-κB signaling. Piperine, present in Pippali and Maricha, improves the bioavailability of active compounds, thereby boosting therapeutic efficacy.

Additionally, its action on digestive metabolism helps regulate the gut–immune axis, which is increasingly recognized as a key driver of autoimmune inflammatory conditions such as Ankylosing Spondylitis. The alkaline nature of Kshara components may further help reduce tissue stiffness and local inflammatory changes. Clinically, this formulation is effective in reducing pain (Shula), stiffness (stambha), and restricted movements (graha), while also preventing disease progression towards fibrosis and Ankylosis. It is particularly

beneficial in the chronic stages of the disease, where Ama persists alongside predominant Vata involvement.

Simhanada Guggulu19

Simhanada Guggulu is a classical formulation primarily indicated in Amavata and is highly relevant in the management of Trika–Kati–Prishta Graha (Ankylosing Spondylitis) due to its close resemblance to autoimmune inflammatory pathology involving Ama and Vata. The formulation comprises key ingredients such as Guggulu, Triphala, and Eranda Taila, with certain references also including Gandhaka. It possesses significant therapeutic attributes, including Amapachana, Vatanulomana, Mṛidu Virechana, Shothahara, and Rasayana properties, rendering it a comprehensive formulation that acts at multiple levels of disease pathology.

From an Ayurvedic perspective, the formulation primarily acts through Ama pachana and Srotoshodhana. Triphala and Guggulu facilitate the digestion and elimination of Ama, thereby clearing obstructed channels and restoring normal physiological flow within the Srotas. This improves the nourishment of deeper tissues, particularly Asthi dhatu, which is significantly affected in Ankylosing Spondylitis. One of the most important actions of Simhanada Guggulu is Vatanulomana, achieved principally through the presence of Eranda Taila. It helps correct the abnormal movement of Vata, thereby relieving symptoms such as pain, stiffness, and restricted movement in the kati–trika region.

- The formulation also exhibits a mild purgative effect (Mridu Virechana), facilitating the gentle elimination of vitiated Doshas from the Pakvashaya, the principal seat of Vata. This helps address the root cause of Vata prakopa and reduce symptom recurrence. Additionally, its Shothaharaproperty plays a vital role in alleviating inflammation at both local and systemic levels, consequently reducing joint swelling and tenderness. The Rasayana effect of Triphala further supports tissue nourishment, prevents degeneration, and encourages long-term structural stability of the joints.
- From a modern scientific perspective, the treatment effectiveness of Simhanada Guggulu is attributable to its anti-inflammatory, antioxidant, and immunomodulatory actions. Eranda Taila contains ricinoleic acid, which exhibits potent anti-inflammatory and mild laxative properties, thereby improving bowel motility and reducing systemic inflammatory load. Triphala acts as a strong antioxidant, helping reduce oxidative stress in musculoskeletal tissues, while Guggulu exhibits significant anti-inflammatory and anti-arthritic effects. Collectively, the formulation works by regulating immune responses, controlling chronic inflammation, and enhancing detoxification through the gastrointestinal tract. Thus, Simhanada Guggulu serves an important role in breaking the pathogenesis of Ankylosing Spondylitis by targeting both Ama and Vata, while also tackling systemic inflammation and tissue degeneration.

CONCLUSION :

This case report suggests that Ankylosing Spondylitis, when understood through the Ayurvedic framework as Trika – Kati - Prishta Graha and Samavata, can be managed effectively with a structured and rational Ayurvedic treatment approach aimed at correcting Ama and balancing Vata-Kapha doshas.

The therapeutic protocol adopted in this case - including Deepana - Pachana, Ruksha Svedana (Valuka Sweda), Mṛdu Virechana using Eranda Taila, followed by Shamana chikitsa with Dwatrimshaka Guggulu - acted by improving Agni, facilitating Ama pachana, clearing obstructed channels, and restoring normal movement of Vata.

Clinically, the intervention resulted in evident relief of pain, reduced stiffness, improved spinal flexibility, and better functional ability. Objective parameters also reflected improvement, with a marked decrease in inflammatory markers, such as CRP, and an increase in chest expansion and lumbar mobility.

The overall response to treatment indicated a substantial improvement of approximately 70%, signifying meaningful clinical benefit in a chronic, progressive disorder.

Therefore, this case demonstrates the potential of Ayurvedic management as an integrated and effective modality for Ankylosing Spondylitis, not only in providing symptomatic relief but also in addressing underlying pathological mechanisms and improving overall quality of life.

However, as the findings are based on a single case, further studies with larger sample sizes are essential to confirm these observations and to formulate standardized treatment guidelines.

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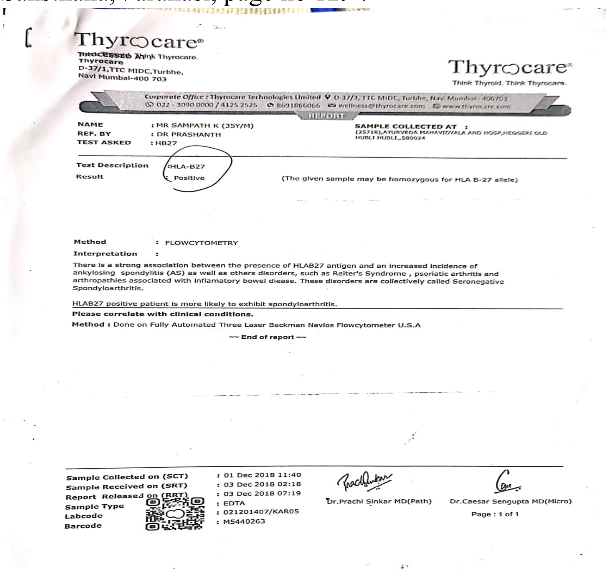

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REPORT

NAME : MR SAMPATH K (35Y/M)
REF. BY : DR PRASHANTH
TEST ASKED : HB27

SAMPLE COLLECTED AT :
(25718),AYURVEDA MAHAVIDYALA AND HOSP,HEGGERI OLD HUBLI HUBLI.,580024

Test Description :HLA-B27
Result : Positive (The given sample may be homozygous for HLA B-27 allele)

Method : FLOWCYTOMETRY
Interpretation :
There is a strong association between the presence of HLAB27 antigen and an increased incidence of ankylosing spondylitis (AS) as well as others disorders, such as Reiter's Syndrome , psoriatic arthritis and arthropathies associated with inflamatory bowel diease. These disorders are collectively called Seronegative Spondyloarthritis.

HLAB27 positive patient is more likely to exhibit spondyloarthritis.

Please correlate with clinical conditions.

Method : Done on Fully Automated Three Laser Beckman Navios Flowcytometer U.S.A

~~ End of report ~~

Sample Collected on (SCT) : 01 Dec 2018 11:40
Sample Received on (SRT) : 03 Dec 2018 02:18
Report Released on (RRT) : 03 Dec 2018 07:19
Sample Type : EDTA
Labcode : 021201407/KAR05
Barcode : M5440263

Dr.Prachi Sinkar MD(Path)
Dr.Caesar Sengupta MD(Micro)
Page : 1 of 1

Image No 1.Showing Report of HLA B27 Test

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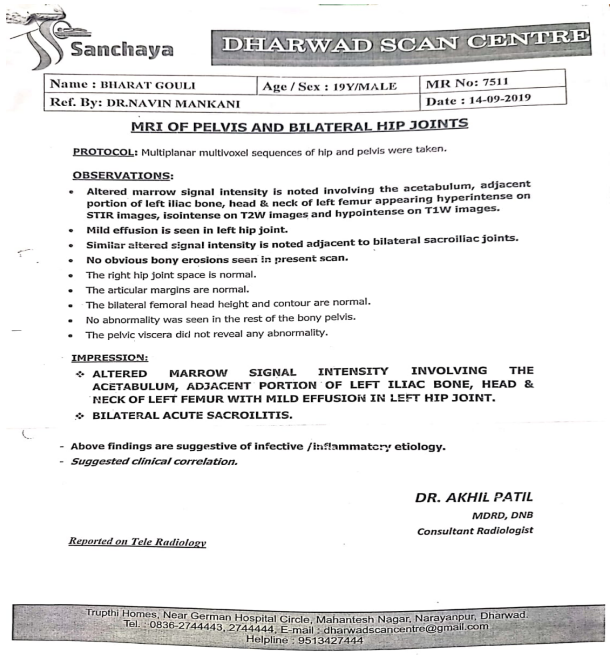


Sanchaya

DHARWAD SCAN CENTRE

Name : BHARAT GOULI	Age / Sex : 19Y/MALE	MR No: 7511
Ref. By: DR.NAVIN MANKANI		Date : 14-09-2019

MRI OF PELVIS AND BILATERAL HIP JOINTS

PROTOCOL: Multiplanar multivoxel sequences of hip and pelvis were taken.

OBSERVATIONS:

- **Altered marrow signal intensity is noted involving the acetabulum, adjacent portion of left iliac bone, head & neck of left femur appearing hyperintense on STIR images, isointense on T2W images and hypointense on T1W images.**
- **Mild effusion is seen in left hip joint.**
- **Similar altered signal intensity is noted adjacent to bilateral sacroiliac joints.**
- **No obvious bony erosions seen in present scan.**
- The right hip joint space is normal.
- The articular margins are normal.
- The bilateral femoral head height and contour are normal.
- No abnormality was seen in the rest of the bony pelvis.
- The pelvic viscera did not reveal any abnormality.

IMPRESSION:

- **ALTERED MARROW SIGNAL INTENSITY INVOLVING THE ACETABULUM, ADJACENT PORTION OF LEFT ILIAC BONE, HEAD & NECK OF LEFT FEMUR WITH MILD EFFUSION IN LEFT HIP JOINT.**
- **BILATERAL ACUTE SACROILITIS.**

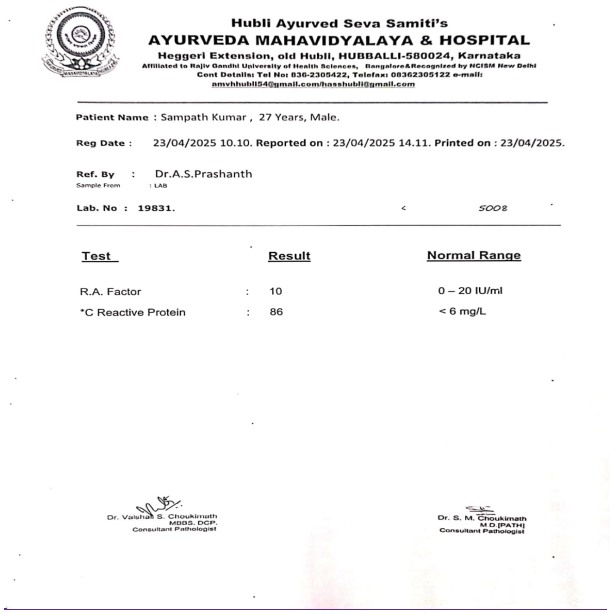
- **Above findings are suggestive of infective /inflammatory etiology.**
- ***Suggested clinical correlation.***

DR. AKHIL PATIL
MDRD, DNB
Consultant Radiologist

Reported on Tele Radiology

Truphi Homes, Near German Hospital Circle, Mahantesh Nagar, Narayanpur, Dharwad.
Tel. : 0836-2744443, 2744444, E-mail : dharwadscancentre@gmail.com
Helpline : 9513427444

Image no.2 Showing the MRI of the Subjrct



Hubli Ayurved Seva Samiti's
AYURVEDA MAHAVIDYALAYA & HOSPITAL
Heggeri Extension, old Hubli, HUBBALLI-580024, Karnataka
Affiliated to Rajiv Gandhi University of Health Sciences, Bangalore&Recognized by NCISM New Delhi
Cont Details: Tel No: 836-2305422, Telefax: 08362305122 e-mail: amvhhubli94@gmail.com/hasshubli@gmail.com

Patient Name : Sampath Kumar , 27 Years, Male.

Reg Date : 23/04/2025 10.10. **Reported on** : 23/04/2025 14.11. **Printed on** : 23/04/2025.

Ref. By : Dr.A.S.Prashanth
Sample From : LAB

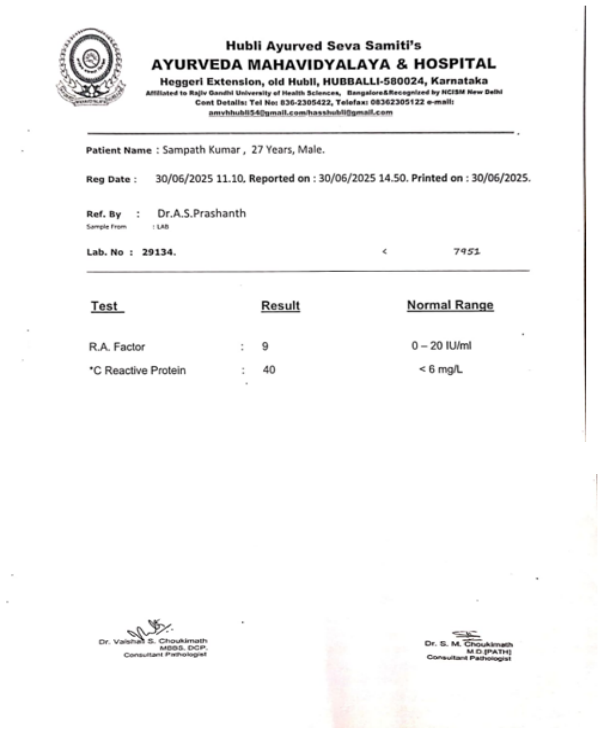
Lab. No : **19831.** 5008

Test		Result	Normal Range
R.A. Factor	:	10	0 – 20 IU/ml
*C Reactive Protein	:	86	< 6 mg/L

Dr. Vaishali S. Choukimath
MDDS, DCP,
Consultant Pathologist

Dr. S. M. Choukimath
M.D.[PATH]
Consultant Pathologist

BT Lab Report as on 23/04/2025



Hubli Ayurved Seva Samiti's
AYURVEDA MAHAVIDYALAYA & HOSPITAL
Heggeri Extension, old Hubli, HUBBALLI-580024, Karnataka
Affiliated to Rajiv Gandhi University of Health Sciences, Bangalore&Recognized by HCISM New Delhi
Cont Details: Tel No: 836-2305422, Telefax: 08362305122 e-mail:
amvhhubli54@gmail.com/hasshubli@gmail.com

Patient Name : Sampath Kumar , 27 Years, Male.

Reg Date : 30/06/2025 11.10. Reported on : 30/06/2025 14.50. Printed on : 30/06/2025.

Ref. By : Dr.A.S.Prashanth
Sample From : LAB

Lab. No : 29134. < 7951

Test		Result	Normal Range
R.A. Factor	:	9	0 – 20 IU/ml
*C Reactive Protein	:	40	< 6 mg/L

Dr. Vaishali S. Choukimath
MBBS, DCP,
Consultant Pathologist

Dr. S. M. Choukimath
M.D.(PATH)
Consultant Pathologist

AT Lab Report on 30/06/2025

Image No.3 and 4 Showing Spinal Changes in the Subject