

# AYURVEDIC MANAGEMENT OF ANKYLOSING SPONDYLITIS (AS): A CASE REPORT

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## Abstract

Background: Ankylosing Spondylitis (AS) is an autoimmune disease characterized by chronic inflammation. It typically manifests in young males. Allopathic treatments such as NSAIDs, corticosteroids, and DMARDs provide limited relief. Main clinical findings: a 40 years old patient, had difficulty in walking, pain and swelling in lower back, cervical, ankles and knee joints with HLAB27 Positive and in Ayurveda that are Angamarda (~generalized body ache), Aruchi (~tastelessness), Alasya (~laziness/lethargy), Sandhiruka (~pain in joints), and Sandhishotha (~swelling in the joints). Diagnosis was done on the basis of Amavata Lakshana (~symptoms). In laboratory investigation ESR 87mm/hr. and CRP 78.2mg/L. Intervention: In treatment here Langhana (~depleting therapy), Deepana (~digestion and metabolism enhancing), Pachana (~digestion), Svedana (~sudation therapy), Virechana

(~therapeutic purgation), Niruha Basti (~therapeutic decoction enema), Agnikarma (~thermal cauterization), Jalaukavacharana (~bloodletting using leech), Shamana Aushadha (~medicine) is given to the patient. In outcome after the treatment patient got improvement in all symptoms and able to walk without support, ESR reduced up to 38mm/hr. and CRP 19.4mg/L reduced. This approach underscores Ayurveda's potential in managing AS.

## Key Words

Ankylosing Spondylitis (AS), Amavata, HLA B27, Autoimmune disease.

## Introduction

Ankylosing Spondylitis (AS) is an auto immune and chronic inflammatory disease with insidious onset. [1] It's more common in males compared to females, the ratio of approximately 3:1 in the

second or third decade. [2] It showing association with histocompatibility antigen HLAB27. [3]

In Ayurveda the signs & symptoms of ankylosing spondylitis resembled with Amavata. The ama formed due to Mandagni (~weak state of Agni) carried by Prakupita Vata (~Doṣa responsible for movement and cognition) resulting features of Amavata.[4][5] The ama with Vata dosha goes to Asthi dhatu (~bone tissue) so the symptoms of Asthi-Majja gata Vata (~vitiation of Vata in bone and bone marrow) are seen.

The long-term care of AS is still difficult despite major advancements in contemporary medicine because there are few curative alternatives and possible adverse consequences from long-term medication. Examining conventional medical approaches like Ayurveda, which provide a comprehensive and customized therapy to chronic inflammatory illnesses, is becoming more and more necessary in this context. Ayurvedic therapies, based on the principles of balancing doshas, Shodhana and Rasayana may provide additional alternatives for symptom management, disease modification, and enhanced quality of life in AS patients. To bridge the gap between conventional wisdom and contemporary evidence-based medicine, thorough scientific study is necessary to confirm the effectiveness, safety, and mechanisms of Ayurvedic therapy in AS. [6][7][8][9] [10]

## CASE REPORT

### PATIENT INFORMATION

A 40 years' male patient, non-smoker, non-diabetic came to OPD with the complains of pain in lower back and cervical region, both ankle joint and knee joint with swelling for 3 years, stiffness in cervical region and lower back in the last 3 years, difficult to walk due to severe stiffness since 1 year & difficulty in bending forward, backward and sidewise for 1 year. Associated with constipation, disturbed sleep and no history of any addiction were informed during examination. No any family member had history of AS. Patient visited to an Allopathic Hospital and diagnosed as a case of ankylosing spondylitis with HLAB27 positive and has been taking tablets sulfasalazine (500mg) and Omnacortil (10mg). Patient visited our Ayurveda hospital for possible management. Patient was thoroughly examined and admitted on 26th March, 2024 for the management of the condition appropriately.

Ashtavidha Pariksha (~eight-fold examination)

On examination, blood pressure 116/76 mmHg, respiratory rate was 19/min and his Nadi (~pulse) Vatapittaja. Mala (~excreta) irregular, once a day with a hard consistency. Mutra (~ urine) regular, 6-7 times a day. Jihva (~tongue) Sama (~associated with ama). Sparsha (~tactile) Ruksha (~dryness), Shabda (~voice, sounds produced from body like percussion etc.) normal, Drika (~eyes and eyesight) normal and Akriti (~body stature) stooped posture.

## CLINICAL FINDINGS

The physical examination of the patient shows Schober's test positive with limited spinal moments in all directions (forward, backward and lateral bending), joint tenderness present over sacroiliac, both knee and ankle. The tragus to wall distance was 13 cm on the right side and 12.5 cm on the left side also patient unable to make contact between occiput to wall while standing with back and heel against the wall. Neck movement is also restricted. SLR test: Positive for both the legs. Rt side - 30 Degree & Lt side - 20 Degree painful. FABER Test – Positive.

## TIMELINE

The timeline of the case from appearance of symptoms to follow up OPD Visit is as depicted in Table 1.

**Table 1: Timeline of the case.**

March 2018	Appearance of symptoms Lower backache (on and off) Managed by painkillers by patient himself
June 2021	Swelling in both knee joint, difficulty in walking due to pain, tenderness over sacroiliac joint HLAB27 Positive, RA FACTOR Negative Consulted allopathic physician and started sulfasalazine 500mg BD
December 2022	Exaggeration of symptoms along with difficulty in walking without

	support. Physician started Omnacortil 10 OD
Marh 2024	Consulted Ayurveda hospital and admitted for further management
May 2024	Patient discharged from our hospital, advised to continue the oral Ayurveda medicine
June 2024	ESR and CRP was done. Improvement in all symptoms. Advised to continue the oral Ayurveda medicine.
August 2024	Walking without support with mild pain and stiffness. Reduced ESR and CRP, Hb increased

## DIAGNOSTIC ASSESSMENTS

The patient was already diagnosed with Ankylosing spondylitis before came to the Ayurveda hospital. ANA and Anti CCP (Fig. 1), HLAB27 and RA Factor (Fig. 2) was done on June 17th, 2021 and February 16th 2024 CRP 78.2 (Fig. 3). Magnetic Resonance Imaging (MRI) done on June 16th 2021 (Table 2) and on March 5th 2024 (Fig. 4,5 and 6). On March 26th 2024 ESR was done (Fig. 7).

**Table 2: Various diagnostic reports**

Date	Name of investigation	Report
16/06/2021	MRI Lumbosacral Spine	Fatty endplate degeneration seen at anteroinferior endplate of L5.
19/06/2021	Hb	13.8 gm%
	HLAB27 PCR	Positive

	(Qualitative)	
	RA Factor	Negative
	ANA/ANF	Negative
	Anti CCP Serum	<0.50 U/ml
16/02/2024	CRP (Quantitative)	78.2 mg/L

### THERAPEUTIC INTERVENTION

After explaining about the planned procedures, and after having consent, the patient was admitted into the indoor patient department. Treatment schedule

was divided into three phases (Table 3). Sulfasalazine stopped on the day of admission and Omnacortil dose tapered and stopped after 2 weeks of admission. Here Vardhaman Pippali is given for ama Pachana for 13 days along with Bashpa Swedana as patient had severe pain so Agnikarma, Valuka Swedana and Suddha Bhallataka Churna added in phase 1. As patient had the Madhyama Kosta 60ml Eranda Sneha was given and Madhyama Suddhi (19 Vega) achieved. After that following Samsarjana krama for 2 days and then shaman Aushadhi and Basti was started.

**Table 3: Treatment schedule**

Duration	Medicine	Dose	Frequency	Anupana
<b>PHASE 1</b>				
26/03/24 to 07/04/24	<i>Deepana Pachana</i> through <i>Vardhmana Pippali</i> ( <i>Pippali Choorna</i> ) (for 13 days)	1 to 5 <sup>th</sup> day increase 1gm every day, then give 5gms continue 5 days and taper the dose 1gm every day till 1gm.	Twice in a day	<i>Jala</i>
26/03/24 to 05/05/24	<i>Sarvanga Bashpa Svedana</i> with <i>Nirgundi Patra</i>	As per <i>Samyaka Lakshana</i>	Once in morning	-
	<i>Valuka Svedana</i>		Thrice in a day	-
	<i>Agnikarma</i>	Over cervical, lower back, B/l knee and B/l ankle region	Once in a day	-
	<i>Shudhdha Bhallataka Choorna</i>	100 mg	Twice in a day	<i>Jala</i>
<b>PHASE 2</b>				
(Phase1 procedures continue in this phase)				

08/04/24	<i>Virechana Karma with Eranda Sneha</i>	60ml	Once in morning	<i>Drakshakvatha</i>
09- 10/04/24	<i>Samsarjana krama</i>			
<b>PHASE 3</b> (phase 1 procedures & medicine continue here except <i>Vardhmana Pippali Krama</i> )				
11/04/24 to 06/05/24	<i>Pippali Choorna</i>	3gm	Twice in a day	<i>Jala</i>
	<i>Rasnapanchaka Kvatha</i>	40ml	Twice in a day (empty stomach)	-
	<i>Yogaraja Guggulu</i>	3 tabs (300mg/tab)	Thrice in a day	<i>Jala</i>
12/04/24 to 05/05/24	<i>Niruha Basti (Dashamoola Kvatha)</i>	320 ml	Once in a day	-
13/04/24 to 06/05/24	<i>Sinhanada Guggulu</i>	3 tabs (300mg/tab)	Thrice in a day	<i>Jala</i>
18/04/24 to 06/05/24	<i>Bruhatvata Chintamani Rasa</i>	1 tab (125mg)	Once in a day	<i>Chushanartha</i>
28/04/24 & 04/05/24	<i>Jalaukavacharana</i>	1 <sup>st</sup> time at both knee joint, 2 <sup>nd</sup> time at both ankle joint	2 times during IPD period	-

## FOLLOW-UP AND OUTCOME

In both the legs 50 degree painful during the SLR test which was improved also the FABER test came negative. Tragus to wall distance reduce to 10 cm on both sides also the occiput distance reduced and Schober's test came negative after completion of

IPD treatment. Also, the improvement in Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) <sup>[11]</sup> and Bath Ankylosing Spondylitis Functional Index <sup>[12]</sup> (Table 4), Investigation reports (Table 5, Fig. 8,9,10) and symptomatic parameters (Table 6).

**Table 4: BASDAI & BASFI**

<b>SYMPTOMS</b>	<b>(Before treatment) 26/03/2024</b>	<b>(After treatment) 06/05/2024</b>	<b>(After 1 month of discharge) 17/06/2024</b>	<b>(After 3 months of discharge) 12/08/2024</b>
Fatigue	8	4	2	2
Neck pain, back pain and hip pain	8	4	3	3
Pain and swelling in other joints	9	5	3	3
Joint tenderness	8	4	3	3
Morning stiffness (intensity)	8	3	3	3
Morning stiffness (duration)	1-2 hours	15-20 min	15-20 min	05-10 min
Bath ankylosing spondylitis functional index	78	46	43	31

**Table 5: Investigation wise result**

<b>INVESTIGATION</b>	<b>26/03/2024</b>	<b>06/05/2024</b>	<b>17/06/2024</b>	<b>12/8/2024</b>
<b>HB</b>	10.2 gm%	10.8 gm%	10.9 gm%	11.7 gm%
<b>ESR</b>	87 mm/hr	78 mm/hr	56 mm/hr	38 mm/hr
<b>CRP</b>	78.2 mg/L (16/02/2024)	59.3 mg/L	33.6 mg/L	19.4 mg/L

**Table 6: Symptoms wise result**

<b>SR.NO.</b>	<b>SYMPTOMS</b>	<b>26/03/2024</b>	<b>06/05/2024</b>	<b>17/06/2024</b>	<b>12/08/2024</b>
<b>1</b>	Pain in Cervical region	Moderate	Absent	Mild	Absent
<b>2</b>	Lower backache	Severe	Moderate	Mild	Mild
<b>3</b>	B/l ankle pain	Severe	Moderate	Moderate	Mild
<b>4</b>	Morning stiffness	Severe	Mild	Mild	Mild
<b>5</b>	B/l knee joint pain	Severe	Moderate	Mild	Mild
<b>6</b>	Sacroiliac pain	Severe	Moderate	Moderate	Mild



## Discussion

This condition considered under *Bahudoshavastha*,<sup>[13]</sup> *Shodhana* (~purifying process) was administered. *Mrudu Shamshodhana* is also the line of treatment of *Vata dosha*.<sup>[14]</sup> *Shodhana* is contraindicated in *Samavastha*<sup>[15]</sup> (~stage associated with *ama*); hence *Deepana Pachana* are must till the *Niramavastha* (~devoid of *ama*) attained. *Vardhamana Pippali* allows for administering the herb at its maximum doses without causing discomfort to the patient. It renowned for its *Deepana*<sup>[16]</sup> - *Pachana* and anti-inflammatory properties along with immune system correction activity. *Pachana*, aiding in the movement of *dosha* from *Shakha* to the *Kostha*<sup>[17]</sup> (~movements of *dosha* from tissues to viscera), plays a pivotal role. *Vardhamana Pippali* facilitates this process effectively. Additionally, *Bashpa Svedana*<sup>[18]</sup> relives *Stambha*, *Gaurava* and also acts *Vatahara*, *Vedanasthapaka* by improving the local blood circulation and thereby increasing the pain threshold. *Valuka Svedana* Ayurveda classics advocate use of dry sudation in *Amavata*.<sup>[19]</sup> *Agnikarma* is the best treatment for *Shoola* by *acharya Charaka*.<sup>[20]</sup> According to *Acharyas* *Agnikarma* is superior in treating *Stambha*. *Virechana* therapy facilitated by *Eranda Sneha*<sup>[21]</sup> which balance *Vata* and *kapha dosha* and get rid of them by purging. In *Amavata* as disease progresses *Margavarodha* increases. So, it requires continue cleaning therapy. Specifically, only *Niruha Basti* therapy is recommended here due to AS's

classification under *Prathama dosha Dushti*, minimizing the risk of *ama* resurgence. It includes *Dashmula Dravya* for *Kvatha* 240ml, *Saindhav* 5gm, *Putoyavani Kalka* 15gm, *Madhu* 30ml, *Tila Taila* 30ml all are mixed in sequence as mentioned in classics. *Shuddha Bhallataka Choorna* with *Tikta-Kaṭu rasa*, *Deepaniya*,<sup>[22]</sup> *Amapachaka*, *Agnivardhaka*, *Vata kapha Shamaka* properties helpful into reduces the stiffness. Semecarpol it inhibits the production of pro inflammatory cytokines and mediators, which are responsible for Inflammation.<sup>[23]</sup> *Dashamoola*<sup>[24]</sup> *Kvatha Niruha Basti* has *Tridoshaghna*, *Vatashamaka*, *Vedana Sthapaka* and *Shothaghna* properties. *Yogaraja Guggulu*<sup>[25]</sup> beneficial in *Mandagni* and *Vataroga*. *Rasna Panchaka Kvatha*<sup>[26]</sup> has effect on *sarvanga Dhatugatavata* and in *Amavata*. *Sinhanada Guggulu*<sup>[27]</sup> is useful in *Tridoshaja Vyadhi* and recommended in *Amavata* condition. In *Bruhatvata Chintamani rasa*,<sup>[28]</sup> all the drugs have targeted effect for the management of *Vataroga*. *Jalaukavacharana*<sup>[29]</sup> Increases the permeability of surrounding tissues, enhancing the spread of beneficial substances and also contributing to the reduction of local inflammation.<sup>[30]</sup>

## CONCLUSION

The present study highlights the effectiveness of Ayurvedic treatment in managing ankylosing spondylitis (AS). While there is no definitive cure for AS, Ayurvedic therapies have been found to effectively alleviate symptoms and slow disease progression. In this case, the patient experienced

significant relief from all symptom. Additionally, the patient no longer requires NSAIDs and DMARDs and showed noticeable improvement in walking. Conclusion cannot be made on a single case study but this can be useful for further research by collecting more data in management of ankylosing spondylitis.

## PATIENTS PERSPECTIVE

The patient – “When I came to this hospital, I had difficulty in walking, swelling and pain in my knees and ankles, restricted neck movement, weakness and disturbed sleep. Allopathic doctors had advised surgery and lifelong medication, including corticosteroids. However, since my admission to this hospital, I have completely stopped all allopathic medications. After undergoing ayurvedic treatments I have experienced significant relief. My walking has improved, my pain and swelling have reduced, and my overall well-being has greatly enhanced.

## INFORMED CONSENT

Written permission for publication of this case report has been obtained from the patient.

## SOURCE OF FUNDING

None

## CONFLICT OF INTEREST

No any conflict of interest.

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