

## A SUCCESSFUL MANAGEMENT OF ANKYLOSING SPONDYLITIS - A CASE REPORT

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**ABSTRACT**

Ankylosing Spondylitis (AS) is a chronic inflammatory arthritis affecting the spine & large joints. It causes pain, stiffness & inflammation from neck to lower back leading to a hunched-over posture with impairment of spinal mobility. AS is one of the most common rheumatic diseases frequently referred as spondyloarthropathies (SPA). The incidence is 0.4-14 per 1,00,000 persons, occurs more frequently in men than women (2:1). Prevalence in India is 0.03%. In *Ayurveda* the management of AS is similar to that of *Amavata*. *Amavata* is one of the most common and crippling joint disorder, where in the *Ama* with aggravated *Vata* plays an important role in pathogenesis and prognosis of the disease. In contemporary science this condition can be managed by NSAIDs, Corticosteroids, and DMARDs but still remains challenging. In *Ayurveda* a detail description regarding the management of *Amavata* has been explained by *Chakradatta* which includes *Langhana*, *Swedana*, *Deepana*, *Virechana* and *Basti Karma*. Hence here a successful management of the condition is made with various treatment methods of *Panchakarma*. A 39 year old male patient diagnosed as SPA+ with HLA-B27+Ve approached OPD of SJIIM Hospital, Bangalore. The patient was treated in 3 phases.

Phase 1-*Dashamoola Kashaya Seka*, *Dhanyamla Dhara*, *Churna Basti*, *Vaitarana Basti*, *Erandamoola Niruha Basti* & *Vardhamana Pippali Rasayana*.

Phase 2-*Valuka Sweda*, *Ishtika Sweda*, *Chinchalavana Pinda Sweda*, *Madhutailika Basti* & *Vardhamana Pippali Rasayana*.

Phase 3- *Sarvanga Abhyanga*, *Nadi Sweda*, *Erandamoola Yapana Basti*.

The patient reported significant improvement in signs and symptoms of the disease. The treatment adopted after assessing the *Ama* and *Nirama Lakshanas* of the disease has given significant relief in signs and symptoms.

**KEYWORDS:** Ankylosing spondylitis, *Amavata*, *Erandamoola Niruha Basti*, *Vardhamana Pippali Rasayana*.

**INTRODUCTION**

In modern science, ankylosing spondylitis is a chronic, systemic, inflammatory, rheumatic disorder of uncertain aetiology primarily affecting the axial skeleton.<sup>[1,2]</sup> Musculoskeletal pain, stiffness and immobility of spine due to AS is a major burden. The fusion of the joint bones leads to bamboo spine formation that causes stiffness and immobility. AS is a gradually progressive condition which manifests clinically as sacroiliitis, loss of spinal mobility, extra-articular symptoms. Patients with severe AS have a reduced quality of life, loss of productivity due to work disability. Prevalence of AS in India is 0.03% as per surveys conducted by Bone and Joint Decade India from 2004 to 2010.<sup>[3]</sup>

NSAIDs, Cortico-steroids and DMRDs are of limited benefit. Corticosteroids are associated with numerous side effects. Traditional disease-modifying anti-rheumatic drugs (DMARDs) used for RA are ineffective in the typical AS patient with disease limited to the axial skeleton, including hip and shoulder joints.<sup>[4]</sup> No

effective disease modifying treatment has been established for AS.<sup>[5]</sup> More than 50% of patients with AS use alternative and complementary medicine for the management.<sup>[6]</sup> Here I present the case of 39 year old male patient, whose diagnosed as AS with HLA-B27 +Ve, successfully managed by *Ayurvedic* principles and was treated with *Ayurvedic* management of *Amavata*.<sup>[7]</sup>

**Case History**

A 39 year old Indian male patient, non-smoker, non-alcoholic, not a known case of DM & HTN was said to be apparently healthy 2 years before, then he developed acute pain in low back which gradually got spread to the neck region with stiffness. The disease was said to be progressive in nature later got associated with pain in bilateral knee ankle & elbow joint, lethargy, loss of appetite and feverishness with disturbed sleep. For all these complaints he consulted an orthopaedic specialist, underwent various investigations and diagnosed as SPA+ with HLA-B27+Ve treated with NSAIDs and corticosteroids, by which he got relief for time being. On

stopping medications the condition got aggravated. Gradually the intensity of disease increased and affected his daily routine activities. So he consulted an *Ayurvedic*

physician who referred the patient to SJIIM hospital Bangalore for further management.

### Clinical Events

Date/Year	Clinical events and intervention
11/08/2016	Onset of lower backache
24/08/2016	Consulted an orthopaedic physician
27/09/2016	Pain spreading to neck region & on consulting physician at GVN Medical centre Hyderabad advised investigation Hb%-12gms%, ESR-110mm/hr, RA –Ve, ASO –Ve, CRP –Ve, Uric acid-5.6mg/dl MRI of LS Spine - Sacroilitis.
22/11/2016	HLA-B27 Qualitative Positive and was started with NSAIDs, DMRDs, Corticosteroids
14/03/2017	Symptoms aggravated as patient discontinued the medication with disease effecting knee, wrist & elbow joints and on investigations Hb%-10.6gm% & ESR-115mm/hr
05/07/2017	Hb%- 9.8gm%, ESR-120mm/hr, VitaminD-17.92ng/ml was treated with Vitamin-D Supplement
11/07/2018	Hb%- 13.3gm%, ESR-53mm/hr, VitaminD-42.28ng/ml after regular medication
24/09/2018	Again symptoms aggravated & patient consulted Sanjay Gandhi Institute of Trauma & Orthopedics, Bangalore.
25/09/2018	Consulted an <i>Ayurvedic</i> physician at <i>Dhatri Ayurdhama</i> who referred the case to SJIIM Bangalore
26/09/2018	Patient was admitted, treated in phase 1 as explained below & discharged On 27/12/2018
23/01/2019	Patient was admitted, treated in phase 2 as explained below & discharged On 09/03/2019
30/05/2019	Patient was admitted, treated in phase 3 as explained below
16/05/2019	Hb%- 13.2gm%, ESR-12mm/hr.
18/05/2019	Patient was discharged.
25/11/2019	Patient is doing well without any signs & symptoms.

Hb=Haemoglobin, ESR=Erythrocyte sedimentation rate, HLA=Human leukocyte antigen, CRP= C-Reactive protein, ASO-Antistreptolysin O, MRI-Magnetic Resonance Imaging.

### Personal History

Diet: - Mixed, *Abhishyandhi*, *Vidahi*, *Guru Anna Sevana*, *Adyashana*, *Vishamashana*, Appetite – Decreased, Sleep - Disturbed sleep, Micturition - 4-5 times a day, once at night, Bowel – Regular, Habits – Nil.

### Samprapti Ghataka

*Dosha: Kaphavata Pradhana Tridoshaja Ama Dosha*  
*Dushya: Rasa, Rakta, Mamsa, Asthi, Snayu, Sandhi,*  
*Kandara Agni: Jataragni, Dhatwagni Ama: Jataragni*  
*Janya, Dhatwagni Janya Srotas: Rasavaha, Mamsavaha,*  
*Asthivaha Srotodushti Prakara: Sanga Udhbhava*  
*Sthana: Amashayotha Vyakta Sthana: Prishta Sandhi*  
*Marga: Madhyama Sadhyaasadyataa: Yanya.*

## Treatment protocol adopted

Phase	Treatment adopted	Outcome of the Treatment
Phase-1 26/09/18 To 27/12/18	<i>Dashamoola Kashaya Sarvanga Seka</i> – ( <i>Dashamoola Kashaya</i> + <i>Gomutra</i> ) for 15 days from 30/09/18 to 14/10/18. <i>Churna Basti</i> <sup>[8]</sup> for 3 days from 16/10/18 to 18/10/18. <i>Stanika Abhyanga</i> to joints with <i>Laghuvishagarbha Taila</i> f/b <i>Dhanyamla</i> + <i>Gomutra Dhara</i> for 15 days from 20/10/18 to 03/11/18. <i>Vaitarana Basti</i> <sup>[9]</sup> for 5 days in <i>Yoga Basti</i> pattern from 06/11/18 to 10/11/18. <i>Sarvanga Abhyanga</i> with <i>Brihat Saindhavadi Taila</i> <sup>[10]</sup> f/b <i>Baspha Sweda</i> for 7 days from 12/11/18 to 18/11/18. <i>Katibasti</i> with <i>Ashwaghandabalalaxadi Taila</i> + <i>Laghuvishagarbha Taila</i> for 7 days from 21/11/18 to 27/11/18. <i>Erandamoola Niruha Basti</i> <sup>[11]</sup> in <i>Kala Basti</i> pattern for 9 days from 01/12/18 to 09/12/18. <i>Vardhamana Pippali Rasayana</i> for 15 days from 12/12/18 to 26/12/18. On discharge advised : <i>Tab Sanjeevini Vati</i> 1tid, <i>Tab Simhanada Guggulu</i> 1tid, <i>Amritarishta</i> 15ml bd.	Acute pain in low back & neck region with stiffness reduced around 60% Pain in bilateral knee ankle & elbow joint reduced around 70% Lethargy reduced Appetite improved No feverishness Sleep improved
Phase-2 23/01/19 To 09/03/19	<i>Valuka Sweda</i> over joints for 7 days from 24/01/19 to 30/01/19. <i>Ishika Sweda</i> for heel for 7 days from 31/01/19 to 06/02/19. <i>Chinchalavana Pinda Sweda</i> over joints for 7 days from 07/02/19 to 13/02/19. <i>Sarvanga Abhyanga</i> with <i>Dhanwantari Taila</i> f/b <i>Dashamoola Kashaya</i> + <i>Gomutra Seka</i> f/b <i>Madhutailika Basti</i> <sup>[12]</sup> in <i>Kala Basti</i> Pattern for 9 days from 14/02/19 to 22/02/19. <i>Vardhamana Pippali Rasayana</i> for 15 days from 23/02/19 to 09/03/19. On discharge advised : <i>Tab Simhanada Guggulu</i> 1tid, <i>Amritarishta</i> 15ml-15ml bd.	Pain in low back & neck region with stiffness reduced significantly (90%) Pain in bilateral knee ankle & elbow joint reduced completely.
Phase-3 30/05/19 To 18/06/19	<i>Sarvanga Abhyanga</i> with <i>Ksheerabala Taila</i> f/b <i>Bashpa sweda</i> for 8 days from 01/06/19 to 08/06/19. <i>Erandamula Yapana Basti</i> <sup>[13]</sup> in <i>Kala Basti</i> pattern from 09/06/19 to 17/06/19. On discharge advised : <i>Tab Shimanada Guggulu</i> 1tid.	Patient is relieved of all the signs & symptoms

**Ingredients of Churna Basti**

*Nimbu Swarasa* - 20ml, *Saindhava* - 6gms, *Sneha* – *Brihat Saindhavadhi Taila* - 30ml, *Kalka* – *Vaishwanara* + *Rasna Churna* - 10gms, *Ushna Jala* - 200ml, Total Quantity approx - 260ml.

**Ingredients of Vaitarana Basti**

*Guda Paka* - 60ml, *Saindhava* - 6gms, *Sneha* – *Brihat Saindhavadhi Taila* - 30ml, *Kalka* – *Chincha* - 20gms, *Kwatha* – *Erandamooladi* - 240ml, *Gomutra* - 50ml, Total Quantity approx - 400ml.

**Ingredients of Erandamooladi Niruha Basti**

*Anuvasana* with *Brihat Saindhavadi Taila* 60 ml  
*Madhu* - 60ml, *Saindhava* - 6gms, *Sneha* - *Brihat Saindhavadi Taila* - 80ml, *Kalka* – *Shatapuspha* - 20gms

*Erandamooladi Kashaya* - 240ml Total Quantity approx - 400ml.

**Ingredients of Madhutailika Basti**

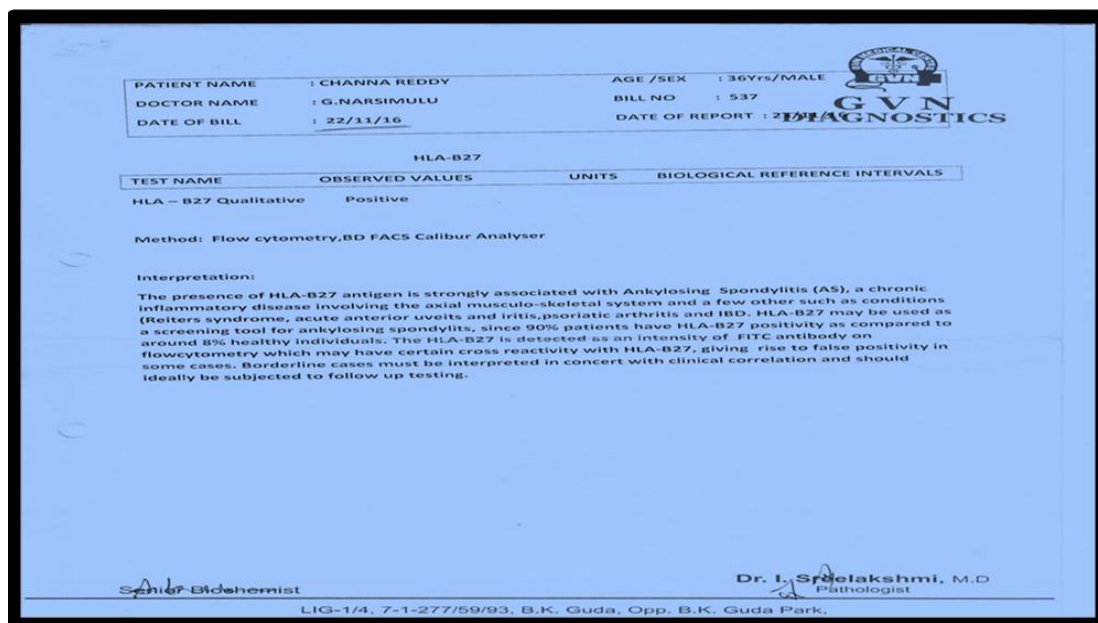
*Anuvasana* with *Brihat Saindhavadi Taila* 60 ml  
*Madhu* - 100ml, *Saindhava* - 6gms, *Sneha* - *Brihat Saindhavadi Taila* - 100ml, *Kalka* – *Shatapuspha* - 20gms, *Erandamooladi Ksheera Kashaya* - 240ml, Total Quantity approx - 460ml.

**Ingredients of Erandamooladi Yapana Basti**

*Anuvasana* with *Dhanwantari Taila* 60 ml  
*Madhu* - 60ml, *Saindhava* - 6gms, *Sneha* - *Dhanwantari Taila* - 80ml, *Kalka* – *Shatapuspha* - 20gms, *Erandamooladi Kashaya* - 200ml, *Mamsa Rasa* - 100ml, Total Quantity approx - 460ml.

## OBSERVATIONS AND RESULTS

Date	Hb%	ESR	Vitamin D	HLA-B27
27/09/16	12.0gm%	110mm/hr	-----	-----
22/11/16	----	-----	-----	Positive
14/03/17	10.6gm%	115mm/hr	-----	-----
05/07/17	9.8gm%	120mm/hr	17.92ng/ml	-----
11/07/18	13.3gm%	63mm/hr	42.2ng/ml	-----
25/11/19	13.2gm%	12mm/hr	-----	Positive



Signs & Symptoms	Examination															
	Lowback		Neck		Right Knee Joint		Left Knee Joint		Right elbow Joint		Left elbow Joint		Right wrist Joint		Left wrist Joint	
	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT
Pain	+++	-	+++	-	+	-	+	-	+	-	+	-	+	-	+	-
Swelling	-	-	+	-	+	-	+	-	+	-	+	-	+	-	-	-
Redness	-	-	-	-	+	-	+	-	-	-	-	-	+	-	-	-
Deformity	++	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
Temperature	+++	-	++	-	+	-	+	-	+	-	+	-	+	-	+	-
Tenderness	+++	-	++	-	-	-	-	-	+	-	-	-	+	-	+	-
ROM	PF RS	PLS	PF RS	PLS	PF	PLS	PF	PLS	PF	PLS	PF	PLS	PF	PLS	PF	PLS

Note : +++ Severe, ++ Moderate, + Mild, ---- No, B T Before treatment, A T After treatment, PF Painful, PLS Painless, RS- Restricted.

**DISCUSSION**

In Ankylosing Spondylitis, the “Ama” *Roopi mala* produced as a result of various unwanted metabolic & biochemical processes, cause degradation and deconstruction of constituents of the cells and fluids inside our body, which are to be eliminated from the body, hence *Shodhana* is first choice of treatment. *Basti* is the prime treatment modality for vitiated *Vatadosha* and also in *Chikitsa* of *Amavata* (AS) which has both local and systemic effect. Though all the *Tridoshas* are involved, *Kapha* & *Vata* are more significant here, so *Basti* was administered. *Ama* is mainly a manifestation of deranged *Agni* and the *Sthana* of *Agni* is *Pachyamanashaya* or *Grahani*. *Vata Sthana* is *Pakwashaya* so the *Basti* is main treatment to pacify the disease. *Basti* pacify *Vata* in *Pakwashaya*, the *Veerya* of the drugs is absorbed through intestine and spreads all over the body there by pacifying the disease.

*Dhanyamla* is *Amla*, *Snigdha*, *Laghu*, *Teekshna* & *Ushna Veerya*. It mitigates vitiated *Vata* and *Kapha Dosha* & most suitable for *Ama Janya* conditions like *Amavata* and other diseases. *Chincha Lavana Pinda Sweda* is a *Snigdha Ruksha* type of *Sweda*. *Chincha* by its *Ruksha*,

*Ushna*, *Amla*, *Vatakaphashamaka* properties and *Lavana* by *Teekshana*, *Ushna Gunas* helps in managing this condition. *Erandamula* a drug of choice for *Amavata*, is best *Vatahara*, *Kapha-Vata Shamaka*, *Deepana*, *Ushna Veerya* & *Srotoshodhana* (clears micro channels). So by virtue of these *Gunas* acts very efficiently in this disease. The root of *Ricinus communis* has significant analgesic and anti-inflammatory activity which are useful in acute and chronic inflammatory conditions, having carminative and free radical scavenging activity by inhibiting lipid per-oxidation, antimicrobial activity. *Vaitarana Basti* is a type of *Mridu Kshara Basti*, works on the basis of *Guna Vaishesika Siddhanta* shows significant result in this disease.

The major causative factors of AS are genetic, with the gene encoding HLA-B27 being the most important genetic factor. The pathology mainly affects the entheses where ligaments, tendons & capsules are attached to the bone. Here the *Ayurvedic* treatments given may have worked at the genetic level hence the patient showed significant relief in signs and symptoms.

**CONCLUSION**

The exact etiology of the disease ankylosing spondylitis remains unknown, but in *Ayurveda* the pathogenic *Nidana* like *Ama* is believed to be acting as auto antigen, which triggers the immunological reaction. The line of treatment was adopted in 3 phases based on the signs & symptoms and improvement in each phase. Early phase of treatment was mainly aimed at *Ama* at *Jataragni* & *Dhatwagni* level. Lastly *Brimhana* treatment was done for *Dhatu Poshana*. The *Vardhamana Pippali Rasayana* helps in decreasing auto-antigens, act on ENS there by releasing the Neuro-transmitters and thus modifying the immune response to auto antigens. The patient reported significant improvement in signs and symptoms of the disease. The treatment adopted after assessing the *Ama* & *Nirama Lakshanas* of the disease has given significant relief in signs & symptoms. Now the patient is doing well without any pain or stiffness.

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