

A Case Report on The Management of Ankylosing Spondylitis (Asthimajjagata Vata) Through Ayurveda

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ABSTRACT

The rheumatic condition ankylosing spondylitis (AS) is a subgroup of the spondyloarthropathies (SpA), which have a strong correlation with the genetic variant HLA- B27. Ankylosing spondylitis (AS) is a spine and sacroiliac joint primarily affecting chronic systemic inflammatory illness. It takes years for AS to reach its clinically evident stage, which includes sacroiliitis, loss of spinal mobility, extra-articular symptoms, peripheral arthritis, and reduced quality of life as a result of structural degeneration. AS is a slowly developing condition. Early in the course of the illness, inflammation-related back pain and stiffness are noticeable; however, a persistent aggressive state can result in severe discomfort and pronounced axial immobility or deformity. A 21-year female patient was diagnosed with AS, and she was identified as having positive HLA-B27 and positive Schober's test. she received 15 days of treatment using a combination of Panchakarma procedures and certain Ayurvedic medications. Based on the Bath Ankylosing Spondylitis Disease Activity Index score, an evaluation criterion was created (BASDAI). A total of two evaluations-one before and one after treatment-were undertaken. The patient's BASDAI scores have improved significantly. It has been demonstrated that some Panchakarma treatments and internal Ayurvedic medications are helpful in the management of AS. According to Ayurveda, the patient was identified as having "Asthimajjagatavata" and was given different Panchakarma treatments, including Abhyanga, NadiSwedana, yogbasti, and Kati Basti, as well as internal medications for 30 days. Indicators and symptoms like back discomfort, tenderness and tingling sensation showed encouraging results without producing any negative consequences.

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INTRODUCTION

Ankylosing spondylitis (AS) is a chronic inflammatory disease that primarily impacts the axial skeleton, peripheral joints, and extra-articular tissues. Its aetiology is unknown. Male-to-female frequency is between 2:1 and 3:1, and the condition typically manifests itself in the second and third decades of life¹. According to research done by Bone and Joint Decade India between 2004 and 2010, the prevalence of AS is 0.03% in India².

The predominant burden of AS is the musculoskeletal discomfort, stiffness, and rigidity of the spine. Low back discomfort that comes and goes, is dull, sneaks up on you, and is typically present in early childhood or late adolescence. The first sign of sacroiliitis may be discomfort in the buttocks that radiates down the back sides of both legs, along with morning stiffness in the lower back that gets better with activity and returns after periods of inactivity. Pain is frequently felt at the costochondral junction, spinous process, iliac crest, greater trochanters, ischial tuberosities, tibial tubercles, and heels. Late symptoms include syndesmophytes, bamboo-like spine, and neck stiffness and pain³. In 80-90% of AS patients, HLA-B27 is present⁴. The old Ayurvedic scriptures do not refer to Ankylosing spondylitis as a distinct condition. However, taking into consideration the signs and symptoms of the disease can be done using the idea With particular reference to the *Asthimajjagatavata*⁵.

KEYWORDS:

Ankylosing Spondylitis (AS),
Asthimajjagatavata, BASDAI,
Schober's test,
HLA-B27.

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Non-steroidal anti-inflammatory drugs (NSAID), corticosteroids, and other disease-modifying anti-rheumatic medications are used to treat AS (DMARDs). These treatments offer little advantage, though. Therefore, finding a safe and efficient treatment for ankylosing spondylitis is considered essential. For the treatment of AS, several *Panchakama* techniques and oral

Ayurvedic medications have been effective. A case of AS was treated using this approach, and the treatment's results are described in the sections that follow.

Case History

Table 1: Demographic details

Name- X.Y.Z	Occupation	-Student
Age- 25 yrs	Marital Status	-Unmarried
Sex- Female	Religion	- Hindu
Address- Wardha	Socio-Economic Status	- Middle Class
Phone no.- *****356	O.P.D. No.	-2212150041
Weight - 50 Kg	Height	- 158 cm

Table 2: Complaints of patient

Sr.no.	Chief complaints	Duration
1	Pain in the pelvic area	1 month
2	Pain in pelvic region radiating to Rt.side of leg	1 month
3	Tingling sensation after long sitting	1 month
4	Pain in the sacrum region during walking	1 month

A 21-year-old female patient with pain in the pelvic region radiating to the Right side of her leg and a tingling sensation after long sitting, Pain in the sacrum region during walking

that had been bothering him for 1 month. Nobody in the family had ever experienced AS. Thepatient had no history of smoking or drinking. The patient had not had any symptoms in the past years. He then began to experience morning stiffness in his lower back and pain in the pelvic region. His Pain in the pelvic

region radiating to Rt.side of her leg gradually worsened, making it more difficult for him to perform daily tasks. When she went to an allopathic hospital, she was identified as having AS and a positive HLA-B27 and a positive Schobertest. NSAIDs were suggested, and they temporarily relieved him. Later, she started to bend over and was unable to sit. she then visited Mahatma Gandhi *Ayurveda* hospital Salod, Wardha to find a solution to his issue.

Table 3: A) AshtavidhParikshana

Sr.no.	Head	Observation
1.	<i>Nadi</i>	<i>Vata Kapha</i>
2.	<i>Mala</i>	<i>Samyak</i>
3.	<i>Mootra</i>	<i>Samyak</i>
4.	<i>Jihwa</i>	<i>Nirama</i>
5.	<i>Shabda</i>	<i>Spashia</i>
6.	<i>Sparsha</i>	<i>Anushnasheeta</i>
7.	<i>Druk</i>	Normal
8.	<i>Akruti</i>	<i>Madhyam</i>

Table 3: B) Vital Examinations

Sr.no.	Head	Observation
1.	HR	74/min, regular
2.	RR	20/min
3.	BP	120/82mm Hg
4.	Temperature	98° F
5.	Weight	50kg
6.	Height	158cm
7.	BMI	20kg/m ²

Musculoskeletal Examination

Gait -NormalLegs Inspection

- No asymmetry
- No bony deformity
- Swelling not present
- Muscle wasting is not present
- Palpation
- Tenderness not present
- No warmth

Spine Examination

Inspection

- No, deformity present
- Swelling not present
- Scar marks are not present

Palpation

- lumbo-sacral region tenderness present
- Range of motion
- Lumbar spine forward flexion is uncomfortable and constrained.
- A lumbar spine cannot expand backwards without pain or restriction.
- A positive Schober Test result
- It is possible to move other joints in the upper and lower

limbs pain-free.

Investigation

1. Haematological analysis revealed that HLA-B27 was positive.
2. MRI - Impression- MRI of both Hip joints no significant abnormality.

Diagnostic Focus and assessment

According to an *Ayurvedic* perspective, the patient's complaints of persistent low back pain with restricted movement and stiffness can be likened to the signs of *Amavata*, and *Asthi-majjagataVata*⁶. As a result, the patient was hospitalised for treatment using Classical *Panchakarma* techniques after the case was diagnosed as *Asthi-majjagata Vata*. Changes seen throughout treatment were assessed and compared using standard parameter scalesBASDAI, BASFI, BASMI, and NRS with numerical scale values of 0-10 on two intervals, before and after the treatment.

Therapeutical Intervention

The patient was hospitalised in the *Panchakarma* In-Patient Department for Classical *Panchakarma* procedures, including *Abhyanga*, *Patrapinda Swedana*, *Katibasti*, *Sasneha Niruha Basti*, and *Matra Basti*, as well as particular oral drugs for *deepan pachan*.

Table 4: Treatment protocol

Sr.No.	Internal Medication	Duration
1	<i>Aamvatari rasa</i> (250mg) 2tab (After Food)	15/12/2022 22/12/2022
2	<i>Punarnava mandur</i> 250mg 2 tab after food	15/12/2022 22/12/2022
3	<i>Hinguwashtak churna</i> 500gm BD Before food	15/12/2022 22/12/2022
External Intervention		
4	<i>Sarvanga Abhyanga</i> with <i>Karpooradi taila</i> + <i>Nadi Swedana</i>	15/12/2022 22/12/2022
5	<i>Patrapinda swedana kati</i> to <i>Ubhayapada</i>	15/12/2022 22/12/2022
6	<i>Katibasti</i> with <i>dashamoola taila</i>	15/12/2022 22/12/2022
7	<i>Sasneha niruha Basti</i> followed by alternate day <i>Matrabasti</i>	15/12/2022 22/12/2022

Table 4(A): Ingredients of *Basti*

<i>Sasneha Niruha Basti</i>	<i>Guduchi, Musta, Gokshur, Ashwagandha</i>	800 ml kwath
	honey	50ml
	<i>Saindhav</i>	10gm
	<i>Sahachar oil</i>	50 ml
	<i>Guduchi churna</i>	10gm
<i>Matrabasti</i>	<i>Sahachar taila</i>	50 ml

Table 4 (B):Type of Basti given

Day	1st	2nd	3rd	4th	5th	6th	7th	8th
Type of Basti	N	N	N	M	N	M	N	M

N - Niruhabasti ,M- Matrabasti

Follow-up and Outcomes

Pain and stiffness were reduced for the patient as a result of

the therapy. 70% of the patient's back discomfort was relieved by the time they were discharged. After 7 days of therapy, the tenderness was completely gone. Along with a reduction in discomfort and stiffness. The table below lists the evaluations of many parameters before and after the procedure.

Table 5: Assessment parameters

Domain	Instrument	BT	AT
Function	BASFI	6.1	3.9
Pain	NRS	10	3
Spinal Mobility	BASMI	6.1	3.6
Stiffness	NRS	10	4
Fatigue	BASDAI	6.3	2.5

NRS = Numerical rating scale; BT = Before therapy; AT = after treatment; BASDAI = Bath Ankylosing Spondylitis Disease Activity Index; BASFI = Bath Ankylosing Spondylitis Function Index; BASMI = Bath Ankylosing Spondylitis Disease Metrology Index.

After 18 days of *Parihaarakala* resting, the patient was called for a follow-up appointment. At the appointment, the patient reported no pain, no tingling sensation and walking was improved. Overall, the patient's daily routine activities had improved.

DISCUSSION

AS is a prevalent rheumatic condition that falls under the category of spondyloarthropathies. Sacroillitis is the initial sign of AS that is currently understood, however, other joints and extra-articular tissues may also be impacted. It is sneaky, affecting people, primarily men, at a young age, then progressing over several years and resulting in deformity. A spinal fracture is the most dangerous consequence associated with AS. The stiff, brittle spinal column can sustain significant injury from even modest stress. Rheumatic symptoms, following Ayurvedic teachings on the three doshas, are brought on by an imbalance and incompatibility among the three, namely by the predominance and dysfunction of the *Vatadosha*⁷.

When *Asthi dhatu* is affected, *Asthi-majjagatavata* is present (bones). The signs and symptoms of *Asthimajjagatavata* include *Asthibheda* (bone pain), *sandhi Shoola*, *Mamsa kshaya* (muscle atrophy), *Balakshaya*, *Aswapna* (disturbed sleep), and *Santatruk* (continuous pain). *Adhasthi* is the outward expression of *Asthipradoshja Vikara* (fusion, ankylosis, and osteophyte development) (disease of bones). Bone pathology requires the *Snehan* (oleation), *Swedan*, and *Panchakarma* procedures like *AnuvasanBasti* and *Niruha Basti*⁸.

Asthimajjagata Vata was used to diagnose and treat the current case.

One *Purvakarma*, *Abhyanga* (local massage), targets the *Snayu*, *Twak*, and *Raktavahini* as the roots of the *Mamsavaha srotas*

(channels delivering muscle sustenance and waste). As a result, it might nourish both the surface and deep muscles while preserving joint stability. The *Vayu's seat*, *Sparshendriya*, is affected⁹. When combined with *Karpooradi taila*, *Abhyanga* exhibits analgesic, anti-neuralgic, and anti-inflammatory properties¹⁰. It is a symptom of muscle spasms, back discomfort, stiff joints, and arthritis¹¹.

Nadisweda: Sthambhaghna (sudation), *Sandhicheshtakar* (improved joint mobility), *Srotoshuddhikar* (clearing the microchannels), and *Kapha-vatanirodhana* are all types of *Swedana* (removing excess *Vata* and *Kapha* dosha). To let the doshas move toward their own *Sthana* and break down the pathophysiology by reducing obstruction in the microchannels, it expands the *srotas* and liquefies the doshas, doing so. This reduces joint stiffness and allows the doshas to move toward their *sthana*¹².

Due to its *Snigdha* and *Ruksha Gunas*, *Patrapindapottali Sweda*, which consists of medicinal leaves with oil, calms *Vata* without increasing *kapha*¹³. Without intensifying the *Aam* (toxic waste product) state, it causes the *Swedan* effect. It has a calming impact on the affected area; specifically, nerve and muscle relaxation may relieve the compression on the nerve root, which also minimizes radiating pain and numbness. *Patrapinda Sweda* is primarily used to relieve the pain, oedema, and stiffness brought on by joint, musculoskeletal, or bone pain¹⁴.

Snigdha Sweda assumes the role of *Katibasti*, who serves as both *Snehana* and *Swedana*. As a result, the application of *Taila*, causes *Doshvilayan* and *Kledan* locally in *Kati Pradesh*. acts as *Sweda Pravartan* and *Srotovishodhana* due to its warm temperature. It produces stiffness, heaviness, and coldness, as well as *Snehana*, *Vishyandan*, *Mardavata*, and *Kledanakaraka*. Give evidence of decreased *Katishoola* and *Katigraha's* key symptoms. As a form of moist heat known as *Katibasti*, it promotes blood flow, lowers inflammation, eases joint stiffness, and soothes deep muscular discomfort and spasms¹⁵. *KatiVasti* with *Dashmool* oil works on surrounding musculature by being absorbed through the transdermal channel as a result of its *Ushna Veerya* and *Snigdha Guna*. As a result, it serves as *Bala Vardhaka*, *Shoola Prashamana*, *Pushtikara*, and *Shramahara*. In the affected area, it causes

Mardawata and *Snigdha*. Additionally, it enhances local blood flow, which aids in draining the inflammatory exudates¹⁶.

Sasnehaniruha Vasti is very beneficial in *Asthimajjagata Vata* condition as it removes *KaphaAvarana* over *Vata* due to protrusion and corrects the vitiated *Vata Dosha* in *Pakwashaya*. This is because *Sasnehaniruha Vasti* has a *Srotoshodhana* effect brought on by the *VataKaphahara* properties of the drugs used for decoction. Additionally, it eases oedema, inflammation, and necrosis in the affected areas and aids in the treatment of constipation. Due to its *Snigdha* and *Ushna Gunas*, which stimulate the *Dhatvagni* through its *TiktaRasa*, *Guduchi* causes *Vedanasthapana* and *Vataghna* activities, making *Dashmoola Tridosahara*. Additionally, it gives the *Dhatu* nourishment through its *Madhura Vipaka*. *Ashwagandha's Madhura* and *Ushna Gunas* have the unique ability to calm *Vata*. It performs the roles of *Shothahara*, *Vedanasthapana*, and *Balya*. Due to its *Madhura* and *Tikta Rasa*.

Gokshura is classified as a diuretic, anti-inflammatory, anthelmintic, and *Anuvasanopaga* called *Mutravirechaniya* (unctuous enema) *Ashmarihara* (Anti-urolithiasis), *Pushtida* (Strength promotor), *Vrushya* (Aphrodisiac), *Bala-krut* (Strength promotor), *Basti-shodhana* (Intestinal cleanser), *Dipana* (Appetizer), *Pramehahara* (Anti-diabetic), and *Shvasahara*. Improve urinary tract infection with *Mutrakricchahara*, *Kasahara* (reduce respiratory infections), *Arshahara* (reduce piles), *Hridrogahara* (Cardiac protective), *Bringhana* (growth promoter), *Shulahara* (pain reliever), *Tridosahara* (pacifies all doshas), *Dahahara* (improves burning sensation), *Kusthahara* (improves skin ailments), and *Rasayana* (rejuvenator)¹⁷. *Ativisha's* and *Musta's Rasapanchakas* were comparable. They both taste bitter and pungent, make the body dry, are easily digestible, stay pungent even after being digested, and balance the *kapha* and *pittadoshas*. They are given to boost the digestive process, stop the body from losing fluid, and manage pyrexia and diarrhoea¹⁸.

Matra Vasti with *Sahachara Taila* is absorbed and distributed throughout the body up to subtle channels, where *Bruhana*, *Balya*, and *Pachana* characteristics cause *Gati Viseshatvam Vatahara* effects¹⁹. Joint and muscular stiffness are reduced²⁰.

Hingwashtak Churna is a poly-herbal Ayurvedic medicine used to treat digestive problems by functioning as a carminative and antispasmodic agent because of its *Katu Rasa*, *Katu Vipaka*, *Ushna Veerya* & *Vata*, and *Kapha Shamak* effect. It is a powerful vermifuge that alleviates all painful diseases, including sciatica and back stiffness²¹.

Inferring from the *Punarnava Mandura's* ingredients it might function in the setting mentioned above by improving digestive capacity as a result of their *Deepana* (appetiser), *Pachana* (digestive), and *Srotasa* (microchannels) effects. Thus, the illness (Pandu) would be cured as well as the body's immunity would be strengthened as people aged²³.

CONCLUSION

Since there is currently no effective treatment for this incurable rheumatic disease, it can be more effectively managed by a combination of oral medications and *Panchakarma* procedures for reducing signs and symptoms and providing patients with the best comfort by reducing the severity of the disability. Therefore, future research and treatment for AS may take into account this kind of technique.

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