



## CASE REPORT

# MANAGEMENT OF ANKYLOSING SPONDYLITIS (KATI PRISHTHA TRIKA GRAHA) THROUGH AYURVEDA: A CASE REPORT

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### ABSTRACT

Ankylosing spondylitis (AS) is a chronic, systemic, inflammatory disease which affects primarily sacro-iliac joints and spine. AS is a gradually progressive condition over several years until structural damage manifests clinically as sacro-iliitis, loss of spinal mobility, extra-articular symptoms, peripheral arthritis and reduced quality of life. Certain *Panchakarma* procedures and internal Ayurvedic medicines have been proved to be beneficial in the management of AS. The present report deals with a case of 'Ankylosing spondylitis' coming to All India Institute of Ayurveda for Ayurvedic treatment. Patient was diagnosed as having "*Katiprishthatrikagraha*" according to Ayurveda and treated with various *Panchakarma* procedures like *Ruksha Svedana* followed by *Abhyanga*, *Bashpa Swedana*, *Kala Basti* along with *Kati Prishtha Trika Basti* were done followed by internal medicines for 30 days. Criteria of assessment was based on the scoring of 'Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Bath Ankylosing Spondylitis Functional Index (BASFI), Bath AS Patient Global score (BAS-G). Encouraging results were found in signs and symptoms like, fatigue, neck/back pain, tenderness and intensity as well as duration of morning stiffness without causing any adverse effects.

### KEYWORDS

Ankylosing Spondylitis (AS), *Katiprishthatrikagraha*, *Kala Basti*, *Ruksha Svedana*, *Katiprishthatrika Basti*.

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## INTRODUCTION

Ankylosing spondylitis (AS) is an inflammatory disorder of unknown cause that primarily affects the axial skeleton, peripheral joints and extra articular structures. The disease usually begins in the second and third decade of life, male to female prevalence is between 2:1 and 3:1.<sup>[1]</sup> Prevalence of AS in India is 0.03% as per surveys conducted by Bone and Joint Decade India from 2004 to 2010<sup>[2]</sup>.

Musculoskeletal pain, stiffness, and immobility of spine due to AS is a major burden. In AS the typical presentation is intermittent bouts of low back pain, dull in nature, insidious in onset, and first noticed in early childhood or late adolescent. The first symptom may arise from sacroilitis with pain in the buttocks radiating down the back of both legs accompanied by lower back morning stiffness of few hours duration that improves with activity and comes back following periods of inactivity. Common sites of pain include costo-chondral junction, spinous process, iliac crest, greater trochanters, ischial tuberosity's, tibial tubercles and heels. Neck pain and stiffness, bamboo spine due to syndesmophytes formation are late manifestations<sup>[3]</sup>. HLA- B27 is present in 80-90% of patients of AS<sup>[4]</sup>.

Ankylosing Spondylitis is not mentioned as a separate entity within the Ayurvedic classical texts. But considering the sign and symptoms of disease can be approached with the concept of

*Vatavyadhi* with special reference to *Katiprishthatrikagraha*<sup>[5]</sup>.

Non-steroidal anti-inflammatory drugs (NSAID), corticosteroids and various disease modifying anti-rheumatic drugs (DMARDs) are used to treat AS. However, these treatments are of limited benefit. Hence it is need of the hour to find out safe and effective management for ankylosing spondylitis. Various *Panchakama* procedures and oral Ayurvedic medicines have proved helpful in the management of AS. On the basis of this concept a case of AS was treated and outcome of the treatment is elaborated as follows.

## CASE HISTORY

A 40 year old male patient (UHID – 246496) visited *Panchakarma* OPD of All India Institute of Ayurveda, New Delhi with the chief complaints of pain and stiffness in lower back and bilateral hip joints since 12 years. He had associated complaints of restricted movement of neck, disturbed sleep, poor appetite and irregular bowel habit. None of the family members had a history of AS. Patient had no history of smoking and alcohol consumption. Patient was asymptomatic since 12 years ago. Then he started feeling pain in bilateral hip joints along with morning stiffness in lower back. Gradually pain got increased along with stiffness in lower back and cervical region due to which he started facing difficulties in daily routine activities. He

consulted an allopathic hospital where he was diagnosed as a case of AS with negative HLA-B27. NSAID's were advised which gave him temporary relief. Later his posture also become stooping type and he was unable to walk. Then he came to AIIA for finding solution of his problem. The case was subsequently admitted to the male *Panchakarma* ward (IPD-000835) of All India Institute Of Ayurveda New Delhi, on March 23, 2018 for the administration of *Panchakarma* procedures.

#### EXAMINATION OF PATIENT

Vitals – pulse 74/min, regular, full volume, BP 120/82 mmHg, and respiratory rate – 20/min.

Physical findings such as loss of spinal mobility, restriction of flexion and extension of the lumbar spine and neck, thoracic kyphosis, loss of cervical and lumbar lordosis were also found. Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Bath Ankylosing Spondylitis Functional Index (BASFI) and Bath AS Patient Global score (BAS- G) scales were used for the assessment of effect of treatment.

#### TREATMENT ADMINISTERED

Both *Panchakarma* procedures and *Ayurveda* drugs therapies were administered in the patient. The details are mentioned in the following table.

**TABLE NO.1: *Panchakarma* treatment adopted**

Sr no.	<i>Panchakarma</i> procedure	Drug	Dose	Duration
1.	<i>Valuka svedana</i> (Dry fomentation with sand)	<i>Valuka</i>	250gm	30 minutes for 7 days (1 <sup>st</sup> day to 7 <sup>th</sup> day)
2.	<i>Sarvanga abhayanga</i> (A whole body oil massage)	<i>Dhanwantara Taila</i> <sup>[6]</sup>	Q.S	30-40 minutes for 16 days (8 <sup>th</sup> day to 24 <sup>th</sup> day)
3.	<i>Vashpa svedana</i> (Steam bath)	<i>Dashmool Kwatha</i>	Q.S	Till <i>SamyakaSwedana</i> for 16 days (8 <sup>th</sup> day to 24 <sup>th</sup> day)
4.	<i>Kala Basti</i> (Therapeutic Enema in a specific schedule)			For 16 days (8 <sup>th</sup> day to 24 <sup>th</sup> day)

5.	<i>Kati Prishtha Trika Basti</i> (External retention of oil over lower back region)	<i>Dhanwantara Taila</i> <i>Prasarani Taila</i> <sup>[7]</sup>	Q.S	45 minutes for 7 days (24 <sup>th</sup> day to 31 <sup>st</sup> day)
<b>ANUVASANA BASTI</b>		<b>NIRUHA BASTI</b>		
<ul style="list-style-type: none"> <li>▪ <i>Brihat Saindhavaadi Taila</i><sup>[8]</sup>– 60 ml,</li> <li>▪ <i>Shatpushpa Choorna</i> – 5 gm</li> <li>▪ <i>Saindhav Lavana</i> – 2 gm</li> </ul>		<ul style="list-style-type: none"> <li>▪ <i>Madhu</i> – 60gm</li> <li>▪ <i>Saindhav Lavana</i> – 5gm,</li> <li>▪ <i>Shatpushpa choorna</i> – 30gm,</li> <li>▪ <i>Guggulu Tiktaka Ghrita</i><sup>[9]</sup> - 90ml,</li> <li>▪ <i>Erandmuladi Kwatha</i><sup>[10]</sup> – 400ml</li> </ul>		

**TABLE NO. 2 : Details of oral medicines administered**

Sr no.	Medicine	Dose	Time & duration	Anupana
1	<i>Rasnasaptak kwatha</i> <sup>[11]</sup>	10 gm	BD for 2 weeks Morning-Evening	Luke warm water
2	<i>Simhanada guggulu</i> <sup>[12]</sup>	2 tab	TDS for 2 weeks After Food	Luke warm water
3	<i>Ashwagandha choorna</i>	3 gm	BD for 2 weeks, Empty stomach	Luke warm water
4	<i>Eranda Taila</i> <sup>[13]</sup>	10 ml	HS for 2 weeks	Luke warm water
5	<i>Ajmodadi choorna</i> <sup>[14]</sup>	3 gm	BD for 2 weeks, Before Food	Luke warm water

## OBSERVATION& RESULT

**TABLE NO. 3 : BASDAI score before and after treatment**

BATH ANKYLOSING SPONDYLITIS DISEASE ACTIVITY INDEX (BASDAI)			
S. NO.		BT	AT
1	Fatigue	6	3
2	Spinal Pain	6	3
3	Joint pain/Swelling	0	0
4	Area of localized tenderness	7	3

5	Morning Stiffness <ul style="list-style-type: none"> <li>At 0 hour</li> </ul>	8	4
6	Duration of morning stiffness	2 Hours	10 minute
	BASDAI SCORE	5.6	2.2

**TABLE NO. 4 BASFI score before and after treatment**

BATH ANKYLOSING SPONDYLITIS FUNCTIONAL INDEX (BASFI)			
S. NO.		BT	AT
1	Putting on your socks or tights without help or aids (e.g. sock aid).	8	4
2	Bending from the waist to pick up a pen from the floor without aid.	10	4
3	Reaching up to a high shelf without help or aids (e.g. helping hand)	8	4
4	Getting up from an armless chair without your hands or any other help.	6	1
5	Getting up off the floor without help from lying on your back.	9	0
6	Standing unsupported for 10 minutes without discomfort	7	4
7	Climbing 12-15 steps without using a handrail or walking aid.	5	3
8	Looking over your shoulder without turning your body	9	3
9	Doing physically demanding activities (e.g. physiotherapy exercises, gardening or sports).	10	5
10	Doing a full day's activities whether it be at home or at work.	9	5
	Average BASFI Score	8.1	3.3

**TABLE NO. 5 : BAS G score before and after treatment**

BATH AS PATIENT GLOBAL SCORE (BAS- G)			
S. NO.		BT	AT
1	How have you been over the last week?	8	4
To measure 2	How have you been over the last six months?	9	4
	BAS-G Score	8.5	4

**TABLE NO. 6 : subjective parameters before and after treatment**

S. NO.	Parameters	BT	AT
1	Appetite	Decrease	Increase
2	Bowel	Irregular	Regular
3	Sleep	Disturbed	Improved

After treatment there was significant relief in symptoms like pain, stiffness, mobility of the spine, and Neck movements. Improvement in quality of life of patient was also observed.

#### **DISCUSSION**

The patient presented with the chief complaints of pain and stiffness in *Kati* region, *Prishtha* region and *Trika* region ( pain along with stiffness in upper back, lower back and hip region). With associated complaints of *Vibandha*, heaviness of body and poor *Appetite*. This is similar to the presentation found in AS. Hence diagnosed as a case of Ankylosing Spondylitis (*Kati-Prishtha-Trika Graha*). *Graha* is a *Vata Nanatmaja Vikara*. So primary concern should be effective treatment of *Vata Dosh*, which includes administration

of *Snehana, Svedana and Basti*. The patient had symptoms of *Ama*, so *Vaaluka Svedana* was started which is a type of *Ruksha Pinda Svedana* specially advised in *Ama* or *Kapha* associated *Vata* condition. After 7 days of *Vaaluka Svedana* patient got lightness in the body, appetite got improved and there was some relief in pain and stiffness which indicated that *Ama* is reduced. *Sarvangha abhayanga* (full body massage) was done with *Dhanwantara Taila* which is specially indicated in *Vata Vyadhi*. By virtue of *Vatahara* properties of the ingredients, it relieved pain and stiffness. *Basti* is the best line of treatment for the management of aggravated *Vata Dosh*. *Erandmooladi Niruha Basti* is specially indicated in *Jangha, Uru, Pada, Trika* and

*Prishtha Shoola* and *graha*. The contents of *Erandmuladi Niruha Basti* are *Vatahara* and aids in the digestion of *Ama* too. Due to these properties, there was relief in pain and stiffness. *Guggulu tiktak Ghrita* is specially indicated in *Sandhiasthimajjagata Vataroga* and *Basti* with *Tikta Ghrita* is specially advised for *Asthipradoshaja Vikaras*. *Kati-Prishtha-Trika Basti* is a procedure in which heated medicated oil is poured and retained for some time by making a pond of black gram dough over dorsal and lumbar spine which provides the benefit of *Snehana* and *Svedana* together. Due to heating effect of the procedure, it improved local blood circulation in that area which in turn helps to drain out the accumulated or deposited substances due to inflammation resulting in reduction of stiffness and pain. *Dhanwantara Taila* and *Prasarni Taila* were used for the above said procedure. *Dhanwantara Taila* and *Prasarani Taila* both have *Vata Kapha Shamaka* properties. Hence relieve pain, stiffness and swelling associated with joints, muscles and soft tissues. *Brihat Saindhavaadi Taila* was used as *Sneha Dravya* for *Anuvasana Basti* which has *Deepan-Pachana* and *Vatanulomana Dravyas* such as *Shunthi, Shatapushpa, Saindhav, Maricha, Ajmoda, Pippali, Pippali Mula*. Thus, it causes *Ama Pachana*. Most of its contents are *Vata-Kaphahara*. *Vata* and *Kapha* are the two main pathological factors in *Kati-Prishtha-Trika Graha*.

It also contains *Vednasthapan* and *Shothahara Dravyas* such as *Rasna, ErandaMula, Renuka Beeja, Nili Vriksha* and *Mulethi*. *Anuvasana Basti* is a type of *Sneha Basti*. It causes nourishment of *dhatu* and overcomes aggravated *Vata Dosha*.

#### **ROLE OF INTERNAL MEDICINE**

*Rasnasapthak Kwatha* (decoction) was given orally which have *Vata* pacifying properties, thus producing significant relief in pain. It is specifically indicated in *Janghashoola, Uroshoola, Prishthashoola, Trikashoola, Parshvashoola* etc. *Simhanada Guggulu* have *Katu, Tikta Rasa, Laghu, Ruksha Guna, Ushna Virya, Katu Vipaka Vedanasthapan, and Deepana-Pachana* properties. Hence it has *Vatakaphashamaka, Amapachaka, Srotoshodhaka* properties which helps in breaking the pathology of the disease. *Ashwagandha* is a real potent regenerative tonic (*Rasayana* of Ayurveda), due to its multiple pharmacological actions like anti-stress, neuroprotective, anti-arthritic, analgesic and anti-inflammatory etc. It is useful for different types of diseases like Rheumatoid and Osteoarthritis. *Eranda Taila* was given for *Koshta Shuddhi* (cleansing of bowels) and *Vatanulomana* (normalising the movement of *Vata*). *Eranda Taila* is a drug of choice for *Vata* disorders. *Ajamodadi Churna* is specially indicated in *Kati Prishtha Guda* and *Jangha Shoola*. Due to *Ushna Virya* property of

*Ajmodadi Churna*, it pacifies the *Vata* and *Kapha Dosha*, hence reduces pain and stiffness of joints.

## CONCLUSION

It can be said that combined Ayurvedic treatment of the above mentioned oral Ayurvedic drugs and *Panchakarma* procedures had shown encouraging results especially in reducing the pain, decreasing the severity of deformities and also improving quality of life of patient without causing any adverse effects.

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### Cite this article as:

Santosh kumar Bhatted, Ram Lakhan Meena, Naveen Kumar Bansal. Management of ankylosing spondylitis (kati prishtha trika graha) through ayurveda: a case report: a case study. *J of Ayurveda and Hol Med (JAHM)*.2019; 7(5): 47-54

Source of support: Nil

Conflict of interest: None Declared