

## MANAGEMENT OF ANKYLOSING SPONDYLITIS THROUGH PANCHAKARMA - A CASE STUDY

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### ABSTRACT

Ankylosing spondylitis is a type of rheumatic diseases which is also known as the spondyloarthropathies (SpA), which show a strong association with the genetic marker *HLA-B27*. It is a rheumatic disease with various skeletal and extra skeletal manifestations. Modern medicine has no established treatment for it. We present a case of AS, which was treated with a combination of *Panchakarma* procedures and *Ayurveda* drugs. From the Ayurveda point of view, the patient was considered suffering from *Asthimajja Gata Vata* and was managed with *Panchkarma* procedure along with oral medications. Patient was treated with *Tikta Ksheer Basti* (enema with medicated milk) and with *Annuvasana* (enema with *Dhanwantar* oil) in *kala Basti* schedule i.e. for 16 days and *Patra Pinda Svedana* (sudation with medicated leaves in form of bolus) for 16 days and along with oral Ayurveda drugs for 70 days. *Panchkarma* procedure along with oral medication is effective in the management of Ankylosing spondylitis

**Keywords:** Ankylosing spondylitis, *Asthimajja Gata Vata*, *Tikta Ksheer Basti*, *Patra Pinda Svedan*

### INTRODUCTION

Ankylosing spondylitis (AS) is a chronic inflammatory disorder that primarily involves the sacroiliac joints and the axial skeleton. It usually starts in the late teens and early twenties and can lead to progressive bony fusion of the sacroiliac joints and the vertebral column; some patients may also show extra-articular manifestations. Musculoskeletal pain, stiffness, and immobility of spine due to AS is a major

burden. Around 0.25% population in India is estimated to be affected by this disease.[1] Prevalence of AS in India is 0.03% as per surveys conducted by Bone and Joint Decade India from 2004 to 2010.2 [2] There is a need to search satisfactory treatment available in other medical system. In AS; the enthesal fibrocartilage is the major target of the immune system, and there may be destructive synovitis.

The myxoid subchondral bone marrow is mainly affected. There is the destruction of nearby articular tissues or joint tissues as disease progresses. The new and original cartilages are replaced by bone through fusion. This causes fusion of the joint bones that causes stiffness and immobility. This fusion leads to bamboo spine formation.) *Ayurveda* interprets these changes are due to vitiated *Vata Dosha* that affect *Asthi Dhathu* (bones). The symptoms of *Vata Vyadhi* (different disease due to *Vata Dosha*) is prominent in later stage of AS. This case of AS was treated on line of *Vata Vyadhi* especially in accordance with *Asthimajja Gata Vata* (disorder involving bone and bone marrow) according to *Ayurveda*. There was significant improvement in signs and symptoms and finding after use of *Panchakarma* procedures along with internal medicines, which shows the effectiveness of *Panchakarma* in case of AS.

#### **Presenting complaints:-**

A male patient aged 30 years came to *Panchkarma* Out Patient Department of National Institute of *Ayurveda*, Jaipur, India with complaint of gradually progressive pain along with stiffness in all over the body, difficulty in sitting and movement of the body along with deformity of spine and hip since 7 years, associated with pain in lower back region. As per the patient, he was asymptomatic before 7 years and he developed symptoms of stiffness in all over the body. Slowly there was difficulty in movement of the body along with severe lower back pain. Patient did not get proper relief from different allopathic treatments, so came for *Ayurveda* treatment. No history of any addiction was found. No any family history of Ankylosing

spondylitis was present. Patient is vegetarian with medium built. Stress regarding the disease was present. Patient was admitted to the male *Panchakarma* ward of National Institute of *Ayurveda*, Jaipur on October-9, 2017 for the administration of *Panchakarma* treatment.

#### **Clinical findings:-**

On physical examination patient was found afebrile with Blood Pressure 110/70 mm of Hg, Pulse Rate 64/min, Respiratory Rate 18/minute. On Systemic examination no abnormality was found in respiratory, cardiovascular and central nervous system. It was a diagnosed case of AS. Table 1 shows history of illness. On examination patient was anxious due to disease with disturbed sleep and *Vishmagni* (unstable digestive functions). Tongue was coated. *Asthivaha Srotodusti* (pathology in bone) and *Majjavaha Srotodusti* (pathology in bone marrow) were more prominent. On local examination swelling was present in bilateral knee joint, along with pain. Neck and lumbar joint movement was restricted and both upper limbs had a movement range up to 45°. Schober's test was positive. X-ray of vertebral column showed characteristic features of AS that is bamboo spine appearance. The human leukocyte antigen (HLA) typing was previously done on March 21, 2011 that was positive for HLA B27. Radiological findings MRI dated 10/8/2017 fusion of all cervical and dorsal facet joints and exaggerated lumbar lordotic curvature seen. Narrowing of both hip joint spaces with articular erosions and bilateral symmetrical sacroillitis. Haematological investigation were done Hb-11.9g%, ESR=80mm/h and CRP- was positive

**Table 1:** Timeline of case

Years	Clinical events and intervention
2010	Onset of low back
2011	Diagnosed for Ankylosing spondylitis(HLAB27- positive, ESR=80mm/h, X-ray pelvis and spine revealed bilateral sacroilitis)
2013	The condition of patient was worsening, X-ray revealed destruction of sacroiliac joint, he took some Allopathic medication
2015	The patient was not under any medical supervision. He himself took painkillers for relieving pain
9/10/2017	Patient was admitted in IPD for pain and severe restricted movement of neck and hip joint (Assessed with ASDAI BASFI BASMI)
9/10/2017	For <i>Ama Pachana</i> (correct digestive fire) <i>Panchkol Churna</i> was given for three days
10/10/2017	Haematological investigations were done(Hb-11.9g%, ESR=80mm/hand CRP- was positive)
12/10/2017	Patient was managed with <i>Tikta Ksheer Basti</i> in alternate pattern with <i>Annuvasana</i> of <i>Dhanwantar</i> oil for 16 days and <i>Patra Pinda Svedana</i> for 16 days and along with <i>Singhnada Guggulu</i> , <i>Rasna Saptak Kwath</i> with <i>Nimbamritadi Erada</i> oil , <i>Ashwgandha Churna</i> with <i>Ajmodadi Churna</i> . Oral medication is continued to till date.
28/10/2017	Haematological investigations were reinvestigated Hb-11.2g%, ESR=70mm/h
28/10/2017	Patient was discharged from IPD ,continued with oral medication till follow up
18/12/2017	Patient came to follow up after 50 days of completion of <i>Panchakarma</i> treatment. There was slight improvement in pain, stiffness and spinal mobility (Assessed with BASDAI BASFI BASMI). Haematological investigations were reinvestigated Hb-12.2g%, ESR=18mm/h

#### 4. Diagnosis and treatment

Initial symptoms are usually a chronic dull pain in the lower back or gluteal region combined with stiffness of the lower back. Individual often experience pain and stiffness that awakens them in the early morning hours. Gradually there is restriction in movements of cervical lumbar and sacroiliac joint with continuous pain. Patient having disturbed sleep and exaggerated lumbar lordotic curvature. These symptoms are similar to Ayurveda *Asthi Majjagata Vata* as *Asthibheda* (stabbing pains in bones), *Parva Bheda* (pain in joints of fingers) *Sandhishoola* (pain in joints), *Mamsa Kshaya* (depletion of muscular tissue) and *Bala Kshaya* (decreased vitality and strength), *Aswapana* (sleeplessness)

and *Satataruka* (continuous pain) are the manifestation of *Asthimajja Gata Vata*[3]. *Adhyasthi* (Fusion of syndesmophytes) is the manifestation of *Asthipradoshavikara* (Diseases of bones)[4]. *Vinamata* (bending of the body) is the manifestation of *Majjavritavata*.[5] According to the symptoms of patient the case was diagnosed as *Asthimajja Gata Vata*, thus it was considered as Ayurveda diagnosis for this case of AS. Patient was admitted having IPD no. 3811 for classical *Panchkarma* procedure. Patient was treated with classical *Panchkarma* procedure along with certain Ayurveda medicines and *Pathya Aahar* which is shown in table no 2.

**Table 2:**

Intervention	Dose	Annupana	Treatment duration
Oral drugs			
<i>Shadanpaniya kwath</i>	40 ml		For first 3 days for <i>Ama pachana</i>
<i>Sighnaad Guggulu</i>	500mg(2 tablets) twice a day before meal	With Luke warm water	3 months
<i>Rasnasaptak kwath</i> and <i>Nimbamritadi Taila</i>	40 ml of decoction with 10 ml <i>Nimbamritadi Taila</i> twice a day empty stomach		3 months
<i>Ashvgandha churna</i>	3 gm twice a day after meal	With Luke warm water	3 months
<i>Ajmodadi churna</i>	2 gm twice a day after meal	With Luke warm water	3 months
<b>Panchkarma Therapy</b>	Methods of prepatation	Method of administration	Duration
<i>Patra Pinda Svedana</i>	A bolus is prepared with <i>Nirgundi</i> leaf, <i>Shigru</i> leaf	Massage with <i>Tila Taila</i> (oil) was done on whole body for 15 min followed by <i>Patra Pida Svedana</i> (A type of sudation) for 45 min with help of a cotton bag filled with bolus of fried leaf	16 days
<i>Annuvasana Basti</i>	75 ml Of <i>Dhanvantra</i> oil with rock salt	Given with <i>Basti Yantra</i> after meal	10 <i>Basti</i> alternatively in <i>kala Basti</i> schedule
<i>Panchtikta ksheer Basti</i>	Honey 50 grams, rock salt 5 grams, <i>Panctikta grhita</i> 90 ml, <i>Shatpushpa Kalk</i> (powder) 30 grams, <i>Panchtikta Kwath</i> (decoction) processed with milk 300 ml	Given with <i>Basti Yantra</i> before meal	6 <i>Basti</i> alternatively in <i>Kala Basti</i> schedule

**5 follow up and outcomes**

During the treatment patient had sound sleep as there was reduction of pain. Until the time of discharge, there were slight movements of

restricted joints along with reduction of stiffness and pain. Assessment of the patient before and after treatment is shown in table no. 3.

**Table 3:** Table of Assessment BT and AT

Domain	Instrument	BT	AT	Percentage relief
Function	BASFI	9	5.8	43.33
Pain	NRS	10	5	50
Spinal mobility	BASMI	8	6	25
Patient global	NRS	9	3	66.66
Affected peripheral joints	Peripheral joint count	10	6	40
Enthesitis	MASES	9	4	55.55
Stiffness	NRS	10	6	40
Acute phase reactants	ESR	80mm/h	18mm/h	77.5
Fatigue	BASDAI	8.5	5	41

BASDAI= Bath Ankylosing Spondylitis Disease Activity Index, BASFI= Bath Ankylosing Spondylitis Function Index, BASMI = Bath Ankylosing Spondylitis Disease Metrology Index, MASES= Maastricht Ankylosing Spondylitis Enthesis score, ESR= Erythrocyte sedimentation rate, NRS= Numerical rating scale 0-10, BT = Before treatment, AT= after treatment.

## DISCUSSION

Ankylosing spondylitis (AS) is a chronic inflammatory disorder that primarily involves the sacroiliac joints and the axial skeleton. There is also a variable involvement of peripheral joints and articular structures. Musculoskeletal pain, stiffness, and immobility of spine due to AS is a major burden. The signs and symptoms of ankylosing spondylitis often appear gradually with peak onset being between 20 and 30 years of age. In AS the enthesal fibro cartilage is the major target of the immune system, and there may be destructive synovitis. The myxoid subchondral bone marrow is mainly affected. There is the destruction of nearby articular tissues or joint tissues as disease progresses. The new and original cartilages are replaced by bone through fusion. This causes fusion of the joint bones that causes stiffness

and immobility. Regimented Ayurvedic intervention in the early stages of the illness can be highly beneficial in the further progression of the illness.

Consequently treatment was planned first to remove the *Ama* (undigested matter) by improving digestion with *Deepana* and digesting the *Ama* with *Pachana* ones. *Basti* is mentioned in vitiation of all the *Vata*, *Pitta*, *Kapha*, and *Rakta Dosha* [6]. It is specially indicated for *Vatika* disorders[7]. “*Pakvashaya*” is very important *Sthan* (Site) of *Vata Dosha* [8] So that *Niruha Basti* (decoction enema) was administered as the principal treatment for *Vata Dosha*. In due course, *Shamana* (pacifying) medicines were advised to prevent relapse and improve the general health of the patient. In *Asthi* (bones) there is dominance of *Vaya* and *Akash Mahabhuta*, as *Acharya Charaka* has said that in the diseases related to *Asthi*, we should give *Basti* using *Tikta Rasatmaka Aushadhi Dravya* along with *Ghrut* (Ghee) and *Ksheer* (milk) [9] According to *Charaka samhita svedana karma* is the procedure which relieves the *Stambha* (stiffness), *Gourava* (heaviness), *Sheetata* (cold) and also induces sweating[10]. As Ankylosing Spondylitis is a *Vata* predominant disorders, so the drugs used for *Patrapinda Sveda* are *Ushna* and having

*Kapha-Vata Doshaghanata* property. Therefore *Nirgundi*, *Agnimantha*, *Shigru*, *Eranda*, *Arka* and *Dhatu* are the selected drugs for *Patrapinda Sveda*. *Nirgundi* [11] and *Dhatu* have Anti-Inflammatory property whereas *Agnimantha* [12], *Shigru* [13], *Eranda* [14] and *Arka* [15] have *Stambhahara* and *Vedana Shamak* analgesic property.

*Shamana* drugs like *Rashna Saptak* is *Vata Shamana* (pacifying) in action and also acts as analgesic, *Nimbaamritadi Erand* is purgative in nature which helps in cleaning the *Shrotas* as mild *Anulomana*. *Singhanadh Guggulu* acts as *Rasayan* due to presence of *Guduchi*, and helps in *Ama Pachana* due to presence of *Tikta Rasa*. Mixture of *Ashwaganda* and *Ajmodadai* helps in *Ama Pachana* and *Rasayana*. Being good *Rasayan Brahma Rasayan* was preferred as it is tonic in case of *Vatavyadi*.

Thus the combination of *Panchakarma* procedures and internal medicines along with healthy dietary and lifestyle regimen was found effective in management of this case of Ankylosing spondylitis.

## CONCLUSION

There was marked improvement in this case of AS. Hence *Tikta ksheer Basti* with *Patra Pinda Svedana* and *shamana* drugs was found to be effective in this case of Ankylosing spondylitis.

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**Source of Support: Nil**

**Conflict Of Interest: None Declared**

How to cite this URL: Kapil Sharma et al: Management Of Ankylosing Spondylitis Through Panchakarma - A Case Study. International Ayurvedic Medical Journal {online} 2018 {cited February, 2018} Available from: [http://www.iamj.in/posts/images/upload/507\\_513.pdf](http://www.iamj.in/posts/images/upload/507_513.pdf)