



## Research Article

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### A CASE REPORT: ANKYLOSING SPONDYLITIS AND ITS MANAGEMENT THROUGH AYURVEDA

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#### ABSTRACT

Ankylosing spondylitis is an inflammatory disorder of unknown cause that primarily affects the axial skeleton and peripheral joint. Due to the side effects and limitations of allopathy medicine some harmless and effective medicine are expected from alternative medical sciences. Ayurveda has great potential to treat such auto immune disorder. Here we are presenting a case of early diagnosed ankylosing spondylitis which was treated with Ayurveda as Aamvata. A twenty-seven-year-old male patient came to Panchkarma outpatient department of M A podar hospital with complaints of lower back ache, multiple joint pain, stiffness and swelling for two months. Patient was treated with Vaitaran basti (type of medicated enema), katibasti (External basti) and patra pottali swedan (medicated fomentation) for thirty days along with oral ayurvedic medicine. Criteria for assessment in this study work were Visual analogue scale (VAS) for pain and stiffness, swelling measurement, Schober's test, Straight leg raised test (SLRT). This study shows the cases of ankylosing spondylitis can be managed with ayurveda.

**Keywords:** Ankylosing spondylitis, Vaitaran basti, Patrapottali sweda, katibasti.

#### INTRODUCTION

In aamvat, vitiated vata dosha spreads aam all over the body through channels (dhamani) and accumulates in shleshma sthan - sandhi which shows symptoms like multiple joint pain, stiffness and swelling<sup>1</sup>. Initially, physical findings mirror the inflammatory process in ankylosing spondylitis. The most specific finding involves the loss of spinal mobility with limitation of anterior, lateral flexion and extension of lumbar spine. In some patients, bony tenderness (enthesitis or osteitis) may accompany back pain or stiffness. The disease usually begins in the second and third decade. Male to female prevalence is between 2:1 or 3:1<sup>2</sup>. The course of disease is extremely variable ranging from individual to individual with mild stiffness and normal radiograph to patients with a totally fused spine and several bilateral hip arthritis accompanied by several peripheral arthritis and extra articular manifestation<sup>3</sup>. Non-steroidal anti-inflammatory drug are the 1st line drug of pharmacologic therapy for ankylosing spondylitis<sup>4</sup>. Sulfasalazine, methotrexate, corticosteroid and TNF inhibitors are used in ankylosing spondylitis. Ankylosing spondylitis shows striking correlation with the histo-compatibility antigen HLAB27<sup>5</sup>.

Ankylosing spondylitis can be correlated with Aamvata in Ayurveda. According to yog ratnakar, Chikitsa upkrama for Aamvata is langhan (fasting), swedan (fomentation), basti (medicated enema), snehan (oleation), virechan (purgation) and upnaha (type of fomentation)<sup>6</sup>. Chakradatta mentioned a specific basti – vaitaran basti for aamvata<sup>7</sup>. Patrapottali swedan is one among the type of swedan (fomentation)<sup>8</sup>. Sthanik (External) basti- kati basti is one of the snigdha swedanas.<sup>9</sup> Vaitaran basti along with sthanik basti - kati basti and patra potalli swedan were selected for the management of ankylosing spondylitis.

#### MATERIAL AND METHODS

##### Case description

A twenty-seven-year-old male patient came to our panchkarma department with the complaints of low backache, bilateral knee and ankle joint pain, swelling and stiffness, left shoulder joint pain and stiffness, fever, loss of appetite and constipation. The pain was consistent throughout the day. He often found it difficult to sleep due to excessive pain. Tenderness was present in sacroiliac point and SLRT Test was up to 40° and positive.

This patient had a HLAB<sub>27</sub> positive report with a raised ESR level and C- Reactive Protein levels. Radiographic left sacroiliitis was also detected. All other haematological, biological investigation, RFT, LFT, Urine examinations report were normal (Table 1)

Diagnosis - Clinical features, blood reports, MRI and x ray findings were suggestive Ankylosing spondylitis.

##### Treatment

The patient was given Panchakarma therapy which is described below: (Table 2)

##### Details of intervention

##### Vaitaran Basti

Requirement<sup>10</sup>  
Mortar  
Glycerine syringe  
Rubber catheter  
Rubber gloves  
Cotton swab  
Measuring flask

### **Basti ingredients and their quantity**

Saidhav – Five grams  
Erand sneha – Thirty millilitres  
Amlika – Forty grams  
Guda (Melted jaggery) – Twenty grams  
Fresh gomutra – One hundred and twenty milliliter

### **Preparation of Basti**

The rock salt is taken in a mortar and added castor oil in it. Mortaring is further continued. Melted jaggery and Amlika kalka is added in it and mixed well. Gomutra is then added and mixed well by triturating.

### **Time, duration and procedure of Basti**

Vaitaran basti of two hundred and twenty milliliters quantity was introduced through anal canal in left lateral position in the early morning before taking any food for thirty days.

Thirteenth day onwards Matra Basti of sixty milliliter containing thirty milliliters of til taila and Mahavishagarbha taila each was also given through anal canal in left lateral position immediately after taking light food during evening hours. This was done to pacify the vata dosha.

Basti was given for a period of thirty days. Basti cycle was described (Table 3)

Patient was observed daily; a special case report of basti karma details of the patient was maintained.

### **Patrapottali swedan**

Application of the heat and there by inducing perspiration by using the heated pack of specific herbals leaves is known as patrapottali swed<sup>11</sup>. Patrapottali sweda is mainly effective in vitiation of vata dosha and kapha dosha both. Patra pottali sweda is useful in samavastha of Amavat and sandhigat vata also. So, we can say that, it is usually effective in inflammatory arthritis with symptoms like stiffness, swelling and pain.

### **Requirement**

Five hundred grams of fresh leaves (Nirgundi, erand)  
Eighteen-inch square cotton cloth and cotton thread  
Castor oil for frying herbal leaves  
Vessel having round bottom for frying herbal leaves

### **Procedure**

Preparation of the leaves pack  
Heating the packs  
Preparation of patient  
Application of oil and massage  
Application of heat to the joint area

### **After procedure**

Patient is asked to take rest and areas which were given patrapottali swedan were washed with warm water.

### **Kati Basti**

The procedure of applying heat to the sacral or lumbar region by retaining warm medicated oil with in a specially formed mould of

dough on the body part is popularly known by the name 'Kati basti'.<sup>12</sup>

**Requirement** – Black gram – Five hundred grams, Mahavishagarbha taila – half liter

### **Procedure**

Preparation of black gram paste  
Preparation of the patient  
Making frame of black gram paste  
Pouring the oil  
Changing the oil  
Removing the oil and frame  
Massage  
Swedan

After procedure the patient was asked to take a rest.

### **RESULT**

Criteria for assessment were Schober's test, SLRT, pain scale, stiffness scale, walking time for 10 meters and swelling measurement

Observations were noted after each seven days in a month. (Table 4)

Significant improvement was noted in back pain and stiffness. Patient's sleep, appetite and quality of life were improved. Patient posture improved along with a relief in low backache. No adverse effect was reported. The patient did not require analgesic during the treatment course. The patient had a significant clinical improvement.

During this therapy, Stiffness gradually decreased day by day. Patient felt 80 % relief in stiffness and 70 % relief in pain at the end of the treatment course.

### **DISCUSSION**

Ankylosing spondylitis is chronic inflammatory disease which cannot be completely cured but can be best managed by various panchakarma therapies. Panchkarma therapy at regular interval gives remarkable effect in ankylosing spondylitis. Swedan diminish Stiffness, pain and heaviness and produces sweat.<sup>13</sup> Stiffness and pain are main complaints of ankylosing spondylitis, so patrapottali swed was selected. It reduces the inflammatory condition, stiffness and improves the flexibility of the body part. Drug used in patrapottali swed are erand and nirgundi. Erand pacifies the vat dosha<sup>14</sup>. Nirgundi pacifies vat- kapha doshas and pain<sup>15</sup>. Also, erand is included in swedaopag gana. (helpful for swedana)<sup>16</sup>

Kati basti is a type swedana, Local fomentation causes secretion of acetylcholine. It causes sedative effect via sensory nerve endings, it also promotes vaso dilation and relieves muscular spasm related to tonic muscle contraction and pain<sup>17</sup>. Mahavishgarbha Oil is useful for pain and stiffness.<sup>18</sup>

The active principles of basti drugs are absorbed because they are mainly water soluble. It may be considered that niruha basti is hyper osmotic which facilitate absorption of morbid factors (dosha) into the solutions whereas the sneha basti and other nourishing basti contains the hypo osmotic solution facilitating absorption in blood<sup>19</sup>. Vaitaran basti is type of niruha basti<sup>20</sup> Vaitaran basti pacifies vata kapha doshas and useful in aamvat disease and low backache<sup>21</sup>. Matra basti is a type of sneha basti.<sup>22</sup> It pacifies vatdosha<sup>23</sup>.

**Table 1: Investigation**

Date	Investigation	Report
3 /10 2018	T3	75.69 mIU / L
	T4	9.86 mIU / L
	TSH	4.31 mIU / L
3 /10/2018	HLAB <sub>27</sub>	POSITIVE
30/10/2018	MRI	Lumbar spondylosis with neural comprises at L4 – L5 and L5 –S1 level. As described acute left sacroiliitis L5 – S1 annular tear and compression over bilateral exiting nerve root
18/2/2019	X RAY OF LUMBAR SPINE	Reduction in L4-L5 and L5-S1 IVD Space width noted with facet joint arthropathy at L5-S1
3/12/18	C Reactive protein	68.34 mg / L
	ESR	95 mm/ hours
	Sr Uric acid	4.6 mg / dL
20/12/18	WBC	11,700 / mm <sup>3</sup>
	Hemoglobin	14.8 g / dL
	ESR	70 mm/ hours
	Uric acid	4.6 mg / dL
25/1/2019	Hemoglobin	11.5 g / dL
	WBC	8.28 / mm <sup>3</sup>
	ESR	50 mm/ hours
	Sr uric acid	4.8 mg / dL
	Sr creatinine	1.0 mg /dL

**Table 2: Panchkarma intervention**

S. No	Panchkarma therapy	Treatment duration
1	Vaitaran Basti	30 days
2	Patra pinda swedan	30 days
3	Kati basti	30 days

**Table 3: Basti cycle**

V- 1	V - 2	V -3	V -4	V -5	V -6	V- 7	V -8	V - 9	V - 10
V- 11	V - 12	V- 13	V - 14	V – 15	V -16	V- 17	V -18	V - 19	V - 20
		M-1	M - 2	M-3	M-4	M-5	M-6	M-7	M-8
V – 21	V- 22	V-23	V- 24	V -25	V- 26	V- 27	V-28	V- 29	V -30
M- 9	M-10	M-11	M-12	M-13	M-14	M-15	M-16	M-17	M-18

V – Vaitaran basti M - Matra basti

**Table 4: Observation**

S. No		Before treatment	7 days of completion of basti	14 days of basti	21 days of basti	30 days of basti
1	Schobers test	18 centimeters	19 centimeters	20 Centimeters	20 Centimeters	20.1 Centimeters
2	SLRT					
	Right	30 <sup>0</sup>	40 <sup>0</sup>	60 <sup>0</sup>	70 <sup>0</sup>	80 <sup>0</sup>
	Left	20 <sup>0</sup>	40 <sup>0</sup>	45 <sup>0</sup>	65 <sup>0</sup>	70 <sup>0</sup>
	Both	10 <sup>0</sup>	10 <sup>0</sup>	20 <sup>0</sup>	40 <sup>0</sup>	70 <sup>0</sup>
3	Pain (Visual analogue scale)	9	8	8	6	3
4	Stiffness (Visual analogue scale)	8	8	7	6	1
5	Walking Time (for 10 meter)	30 seconds	30 seconds	25 seconds	12 second	12 seconds
6	Knee joint swelling measurement (in centimeters)					
		36 32	34 34	34 34	34 33	33 33
		38 33	37. 35	37 35	37 34	37 34
		32 31	30 30	30 30	30 30	30 30
						
	Rt Lt					
7	Ankle joint swelling (in centimeters)					
	Rt lt	31 23	25 22	22 23	22 23	22 23
		29 32	29 29	25 31	25 30	25 30
		26 27	29 25	28. 25	28 24	28. 24

So combined effect of vaitaran basti, Patrapottali swed and kati basti gives beneficial effect in inflammatory condition like ankylosing spondylitis.

## CONCLUSION

On the bases of single case study, it can be concluded that, panchkarma therapy like vaitaran basti, patrapottali sweda, katibasti shows a significant effect in the management of ankylosing spondylitis.

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