



CLINICAL EVALUATION OF “RAJYAPAN BASTI” IN ANKYLOSING SPONDYLITIS: SINGLE CASE STUDY

Manab Jyoti Sarmah^{*1}, Rishu Sharma², Himani³, Parul Sharma⁴ and K. K. Sharma⁵

¹Post Graduate Scholar, ²Post Graduate Scholar, ³Post Graduate Scholar, ⁴Assistant Professor, ⁵H.O.D.
Rishikul Campus, Uttarakhand Ayurved University, Haridwar, Uttarakhand.

***Corresponding Author: Manab Jyoti Sarmah**

Post Graduate Scholar Rishikul Campus, Uttarakhand Ayurved University, Haridwar, Uttarakhand.

Article Received on 07/09/2020

Article Revised on 28/09/2020

Article Accepted on 18/10/2020

ABSTRACT

Ankylosing Spondylitis is an autoimmune inflammatory disorder which affects the axial skeleton with various extra-articular manifestations. It affects more than 1 million Indians per year. In *Ayurveda*, the symptoms of Ankylosing Spondylitis mimics with *Asthi-Majjagata Vata*. In the present study, an adult with second stage of Ankylosing Spondylosis was given *Panchakarma* Treatment (*Rajyapan Basti*) and was followed up in 60th day. Significant improvement was noticed in range of movement of lumbar spine and marked result was seen in almost all the symptoms. But, there was no changes were noticed in the physical test in before and after treatment. *Rajyapan Basti* was found effective in managing the symptoms of Ankylosing Spondylosis.

INTRODUCTION

Ankylosing Spondylitis is a chronic autoimmune inflammatory disorder that mostly involves the axial skeleton with various extra skeletal manifestations. It affects men more often than women. In India it is reported more than 1 million cases per year. Prevalence of Ankylosing Spondylitis in India 0.03% as per survey conducted by Bone and Joint Decade India from 2004 to 2010.^[1] The disease pathology usually starts in early adulthood. In the later course of life this disease results in serious impairment of spinal mobility and physical function, which hampers the quality of life. Pharmacological treatments include non-steroidal anti inflammatory drugs (NSAIDs), oral glucocorticoids, synthetic disease modifying anti-rheumatic drugs (sDMARDs), and tumor necrosis factor inhibitors (TNFi).^[2] Physical therapy and exercise are the non pharmacological management of ankylosing spondylitis. We can understand the pathology of ankylosing spondylitis under the heading of *Aamvata*, *Asthimajjagata Vata*. In this particular case, *Vata Dosha* was predominant which is associated with *Ama*. The symptoms of the disease mostly mimics with the symptoms of *Asthimajjagata Vata*,^[3] in *Ayurveda*.

A 25 years old male patient visited the Out Patient Department of *Panchakarma* with the complaints of pain in the lower back radiating to bilateral thigh region since last 10 months. The pain has been gradually increasing and often presented with mild stiffness. Patient also experienced similar episode of pain approximately 1 year ago. The pain, stiffness is worsening often in the morning time. Patient had complaint of redness of left

eye 2 times in last 1 year. He had no any past history of serious infectious disease or life style disorder. There was no any evident of localised trauma/ accident. Patient had been often taking Over The Counter medicine from nearby pharmacy for the same problem since 1 year. Medication relieved his symptoms temporarily but after a specific period pain and stiffness again aggravates. Patient had family history of undiagnosed back pain to his maternal grandfather.

CLINICAL FINDINGS

Patient is from Roorkee; Uttarakhand, a student of diploma course in *Yoga & Naturopathy* belongs to middle class family. He is habituated to non vegetarian food, irregular eating habit and addicted to gutkha (vimal paan masala). Patient is fond of fast food but now controlling over it. His appetite, bowel, micturition habit is normal. On examination, B.P. (130/80 mmHg), Pulse rate (76/min), Respiratory rate (22/min), Heart rate (76/min) are within normal limit. Pallor, icterus, cyanosis, edema, dehydration were not present. No local lymphadenopathy, clubbing are noted. On systemic examination, cardiovascular, respiratory, central nervous system, gastrointestinal system and urogenital system are found within normal limit.

A detailed Musculoskeletal System examination was done in order to find out the related findings regarding the disease of patient. On performing examination, following notes were made.

Gait: Normal gait. Patient could stand upright and walk without any difficulty. Toe walking and heel walking were normal.

Upper Limb: Normal muscle bulk, power and range of movements were within normal limit.

Lower Limb: Normal muscle bulk, power was normal in bilateral lower limb. Range of movement of bilateral hip joints were slightly reduced. Moderate tenderness was found in posterior aspect of bilateral thigh.

Spine: Lumbar lordosis is slightly reduced. Tenderness is noted in lumbo-sacral and bilateral hip region. No evident of localised inflammation. Flexion and extension of lumbar spine is reduced.

Special Physical Test
Schober's Test: Positive
Gaenslen Test: Positive

INVESTIGATION

Laboratory investigation reveals Hb% (11.3 gm/dl), TLC (15000 cells/cumm), ESR (30 mm/1Hrs-wintrobe method), CRP (16 mg/ml), HLA B-27 PCR (positive).

Radiological findings(X ray lumbo sacral spine) suggests bilateral sacroiliac changes, reduced lumbar lordosis, soft tissue inflammation around the lumbar spine.

After all the clinical examination and investigation the patient was provisionally diagnosed as a case of second stage Ankylosing Spondylosis. The diagnosis of Ankylosing Spondylosis was made in the light of modified New York criteria.^[4]

AYURVEDIC REVIEW

During *Dashavidhparikshaya Bhava* examination, patient was observed as *Pakruti: Vata – Pitta, Vikriti: Vata* predominant, *Anubandha dosha* were *Pitta and Kapha, Sara: Mamsasara in Pravar; medasara in Madhyam; Rasa, Rakta, Asthi Majja, Shukrasarata in Avar matra, Samhanana: Madhyam, Pramana: Madhyam, Satmya: Madhyam, Satva: Madhyam, Ahara shakti: Madhyam, Vyayama shakti: Pravar, Vaya: Tarunavastha.*

Samprapti Ghatak in this particular disease.

Dosha- Vata

Dushya- Rasa, Rakta, Asthi, Majja

Srotas- Asthivaha, Majjavaha

Agni- Vishamagni, Dhatwagni manda

Rogamarga- Madhyam

Sadhyasadhyta- Yapy/ ashadhy

Principles of *Ayurveda* states that *Sodhana Chikitsa* should be performed first than to *Saman*. Already patient had been gone through analgesics and other allopathic drugs for his same problem. So, we choose *Yapan Basti* which comprises of both *Brimhana* and *Sodhana* properties to combat with the disease *Samprapti*.

INTERVENTION

Mustadi Yapan Basti is categorized under *Yapan Basti* of superior quality. It is the king of *Yapan* and is the best *Rasayana*.^[5] All the ingredients⁶ of *Rajyapan Basti* have *Brimhana* and *Srotasodhan* property. Ingredients of the *Basti Dravya* along with their quantity are tabulated below (Table No.1).

Table 1:

Ingredients	Quantity
Honey	60 ml
Salt (<i>Saindhav Lavan</i>)	10 gm
Cow's Ghee	40 ml
<i>Kalka Dravya</i>	20 gm
<i>Kwath Dravya</i>	300 ml
Total quantity	430 ml

The *Basti Dravya* was being prepared manually as per classical method of preparation. *Basti* was given by metal-*Basti Netra* attached with polythene-*Basti Putak*.

Procedure of *Basti* administration was being followed as per classical method in three phases i.e. *Purvakarma*,^[7] *Pradhan Karma*,^[8,9] and *Pashyad Karma*.^[10] Prior to administration of *Basti*, *Agni Deepti* and *Kostha Suddhi* was done by giving following medication for 3 days.

Rx

1. *Hingwastak Churna*: 1 tsf thrice daily with food
2. *Panchkool Phant*: 30 ml twice daily before food.

From the fourth day, assessing *Kostha, Agni, Rogi* and *Roga Bala, Basti* was administrated in empty stomach. *Yapan Basti* for 14 days was planned in this particular case.

Quantity of total *Basti Dravya* was 430 ml. Retention time of *Basti Dravya* was 10 min (with the variation of 6 min to 14 min). There was no obvious complication/ side effect was noted during or after the procedure.

During the whole period of *Basti Chikitsa*, no internal medicine was administered.

OBSERVATION AND RESULT

The assessment was done of the clinical symptoms presented by the patient. Patient was assessed for his symptoms on 0 day (before starting any medication), 4th day (before starting *Basti Karma*) and 18th day (completion of *Basti Karma*). Pain, tenderness were gradually reduced during the whole treatment which is tabulated in table no. 2. Pain was measured on the basis of Visual Analogue Scale (Fig No. 1). Range of movements of lumbar spine were noted on the basis of Flexion, Extension and Rotation with Goniometer. It was found that the range of movement were gradually increased upto the day of completion of treatment (Table no. 3).

Table 2:

Sing & Symptoms	0 day	4 th day	18 th day
Pain	8	7	4
Tenderness	+++	+++	++

Table 3:

Range of Movement (lumbar spine)	0 day	4 th day	18 th day
Flexion 60	36 degree	50 degree	52 degree
Extension 25	12 degree	16 degree	18 degree
Right Rotation 18	12 degree	16 degree	16 degree
Left Rotation 18	12 degree	14 degree	14 degree

Patient was discharged on 20th day and was advised for follow up on 30th day and 60th day. Both the symptoms i.e. pain and tenderness were found significantly reduced

(Table no. 4). Schober's test, Gaenslen test was found positive after the treatment, chest expansion was measured increased (Table no. 5).

Table 4:

	Before Treatment (0 Day)	After Treatment(60 th day)
Pain	8	2 (occasional)
Tenderness	+++	Absent
Flexion	36 degree	58 degree
Extension	12 degree	24 degree
Right rotation	12 degree	18 degree
Left rotation	12 degree	18 degree

Table 5:

Physical Test	Before treatment(0 day)	After treatment(60 day)
Schober's test	Positive	Positive
Gaenslen Test	Positive	Positive

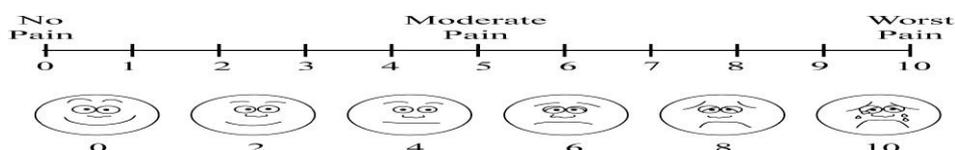


Fig. 1: (Visual Analogue Scale for measuring Pain).

Patient did not use any allopathic medication except Tab. Paracetamol 500 mg (SOS) in the first ten days. On 60th day patient was advised following medications to be continued and advised to visit Out Patient Department of *Panchakarma* thrice in a year.

Rx

1. *Tryayudashanga Guggulu* 1 tab thrice daily.
2. *Ashwagandha Churna* 5gm daily thrice daily.
3. *Prasarani Tail* for local application.

DISCUSSION

Ankylosing Spondylitis is a autoimmune disorder with involvement of mainly the axial spine. Disease is predominately due to *Vata dosha* associated with *Pitta* and *Kapha*. So, *Rajyapan Basti* was chosen for the particular case as it consists of both the qualities of *Niruh* (*Sodhana*) and *Anuvasana* (*Samana*). It is having *Rasayana* properties also.

Basti is considered to be the best treatment to normalize the *Vata Dosha*. It expels out *Dosha* from head to toe by its *Virya*, just as the sun situated in the sky sucks up the

moisture of the Earth.^[11] *Basti Dravyas* that are being inserted through rectum goes upto the *Nabhi Pradesha* via *Parsva, Kukshi* etc., churns the accumulated *Dosha* and *Purisha*, spreads the unctuousness all over the body and easily comes out along with the *Purisha* and vitiated *Dosha*.^[12]

Most of the *Kwath Dravyas* of *Rajyapan Basti* are mentioned in *Rasayana Adhikar* by *Acharya Charak*. As Ankylosing Spondylosis is a autoimmune disorder, *Rasayana* drugs plays key role in maintaining it s *Rasayana* lowers the oxidative stress in our body. Most of the drugs possess *Katu, Tikta* and *Kashaya Rasa*. Milk has its own *Madhura Rasa* with *Guru, Pichhila Guna* as well as *Rasayana* property. *Saindhava* has its *Sukshmasrotogami* and *Srotoshudhaka* property. *Maskshikam* has mainly *Kapha Shamak* and moderately *Pitta Shamak* property. *Ghrita* is superior amongst all *Vatapittahara* substances. It acts on *Prana, Udama* and *Samana Vayu, Sadhaka* and *Bhrajak Pitta*. It strengthens *Rasa, Mamsa, Meda, Majja, Shukra* and *Ojas*.^[13] *Rajyapan Basti* as a whole possesses *Vatanulomana, Srotoshuddhi*, and *Rasayana* effect. Therefore, it helps in

Samprapti Bighatana of this particular case. *Basti* lowers the anxiety by acting through neuro-endocrine pathway, and in turn it helps to restore the progress of the disease.

In the present study, significant improvement in *Stambha*, *Katisanga* due to effect on *Prana*, *Udana*, *Vyana Vata*. In this case, *Rajyapan Basti* is found effective in managing the symptoms of ankylosing spondylitis like pain, tenderness and morning stiffness. Range of motion of lumbar spine significantly increased. But, Schober's test and Gaenslen test were found positive in the whole study period. No any relapse of the symptom was noticed upto 60 days.

CONCLUSION

There is no cure for Ankylosing Spondylitis, but *Ayurvedic* treatments can lessen the symptoms as well as prevent further progress of the pathology. In this case, *Rajyapan Basti* is found effective in managing the symptoms of Ankylosing Spondylitis like pain, tenderness and morning stiffness. Range of motion of lumbar spine significantly increased. Research work should be done with large sample size to better conclusion.

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