



Ayurvedic Management of Ankylosing Spondylitis w.s.r to Amavata: A Case Study

Sachin G. Tike^{1*}, Prashant Baghel², Suvarna S. Jadhav³, and Neha Sat Paul⁴

¹Department of Panchakarma, Govt. Ayurved College, Osmanabad, Maharashtra, India

²Kriya Sharir Department, Govt. Ayurved College, Osmanabad, Maharashtra, India

³Ayurveda Practitioner, at Maharashtra, India

⁴Shalya Tantra Department, Govt. Ayurved College, Osmanabad, Maharashtra, India

Abstract

Ankylosing spondylitis (AS) is a predilection for the sacro-iliac joints and spine. It is characterized by progressive stiffening and fusion of axial skeleton so, known as Spondyloarthropathies (SpA), which shows a strong association with the genetic marker HLA-B₂₇. Till today, there is no satisfactory management of the disorder is available in modern medical science. From the Ayurvedic perspective, the disease can fall under the 'Amavata'. Various Panchakarma procedures like 'Vaitaranbasti' (enema with medicated cow's urine), Agnikarma (treatment with cauterization) combined by Shaman Chikitsa (conservative treatment) with Rasaraj rasa, Shudarshanachurna and Shunthichurna etc. have been found effective in reducing the progression of the disease. Patient's condition was assessed for the symptoms of Amavata and line of treatment was followed accordingly. The drugs and procedure mentioned in Amavata Chikitsa were followed for AS, and showed significant results. This article presents a single case report in which AS may be successfully managed with Ayurvedic treatment.

Keywords

Ankylosing spondylitis, Amavata, Vaitaranbasti, Aampachana, Agnikarma



Greentree Group

Received 09/03/17 Accepted 05/03/17 Published 10/05/17



INTRODUCTION

Ankylosing spondylitis (AS) belongs to the group of rheumatic diseases. Chronic inflammation within sacro-iliac joints and spine causes pain and stiffness in and around the spine. Gradually, the chronic spine inflammation can lead to complete fusion of vertebrae, a process referred to as Ankylosis. It leads to loss of mobility of the spine and condition is known as “Bamboo-spine”. The disease has a peak onset in the second and third decades with male: female ratio of about 3:1. The overall prevalence is around 0.5 % in the most communities, but is much greater in the Pinna and Haida Indians, who have a high prevalence of HLA-B₂₇¹. Ankylosing spondylitis affects all age groups including children (juvenile AS). In modern science long term use of non-steroidal anti-inflammatory drugs (NSAIDs) and disease modifying anti rheumatic drugs (DMARD) and corticosteroids may improve the signs and symptoms of Ankylosing Spondylitis including spinal mobility². According to Ayurveda, Ankylosing spondylitis is caused by aggravated ‘Vata’. The imbalance of ‘Vata’ dosha causes a type of arthritis of spine due to *Agnimandya* (Digestive insufficiency). Harmful radicals like *Aama* (formed by

improper digestion) vitiate *Vatadosha*, which affects *Asthidhatu* (bones). We present here a case that was successfully treated by the line of Ayurvedic treatment of *Aamvata*.

CASE REPORT

A male patient of 34 years old, teacher by profession at dist. Beed (Maharashtra, India). OPD registration no. 37307 came in OPD no. 13 of *Panchakarma* department in Govt. Ayurvedic college & hospital Osmanabad, Maharashtra for a complaint of gradually progressive pain and swelling at both knee and ankle joints and deformity of spine and hip joint since last 9 years.

PAST HISTORY:

None of family member has history of AS. For a long time case was taking NSAID's and corticosteroids for pain relief. He was taken to an orthopedic specialist who diagnosed as having AS. He was managed accordingly with Allopathic medicines but he didn't get any relief.

EXAMINATIONS:

Patient was admitted in male *Panchakarma* ward with IPD registration no. 2127

SYSTEMIC EXAMINATIONS:

VITALS-

- Pulse- 80 beats/min.
- Blood Pressure- 110/70 mm of Hg



- Temperature - 99.4⁰F(Orally at 9 AM)
- Respiratory rate- 20/min
- CVS- S₁S₂ normal, no added sound
- CNS- Conscious and well oriented
- RS- Air entry bilaterally equal and clear
- P/A- Soft and non-tender

BLOOD INVESTIGATIONS: (Dated: 30-09-2016)

- Hb- 11.5 gm%
- ESR- 48 /minat the end of 1st hour
- BSL- (Random)-89 mg/dl
- RA factor- Negative
- Serum creatinine- 0.8 mg /dl
- HB_sAg (hepatitis B surface antigen)- Non –reactive
- Uric acid - 5.3 mg /dl
- ASO- 40.40 IU/ml
- HIV antibodies 1 & 2 – Non-reactive
- HLA-B₂₇-POSITIVE

METHODOLOGY:

The patient had continuous joints pain (knee, ankle and sacro-iliac), swelling over knee joint, fever, anorexia, limping, fatigue, and severely disturbed sleep. These symptoms can be compared with *Aamvata*³. Initially the patient was administered treatment for his fever as the

fever was one of the main presentations, so *Mahasudarshanchurna*- 3 gm. twice daily, *Chitrakadi vati*-500mg twice daily were administered, after subsiding of fever *Deepana-pachana* (Ayurvedic appetizers) and proper *Snehana* (oleation), *Swedana* (fomentation) therapy was started. After observing *Niramavastha* (subsiding of *Ama*), *Mriduvirechana* (mild purgation) with *Erandataila* (castor oil) 20 ml was given at night for a few days. After *Mriduvirechana* the patient was treated with *Vaitaranabasti* (enema with medicated cow's urine) for 12 days, along with combinations of oral Ayurvedic drugs.-*Rasaraj rasa*- 100mg twice a day, *Bhallatakataila* for local application on affected joints, *Rasnasaptakkwatha*- 20 ml twice a day, *Shunthichurna* 1 gram along with *Amrutadichurna* -3 grams twice a day for 2 months. Alternatively leech applications, *Agnikarma* were also done. After completion of the treatment, the patient was discharged on 30-12-2016. At the time of discharge he was advised to continue the oral treatment for next one month. The patient was advised to take these medicines and *Panchkarma* procedures around 2 month. No concomitant allopathic



medication was given during this whole treatment period.

TABLE:

Table 1 "Oral medications"

| FORMULATION | DOSE | DURATION | ANUPANA |
|--|--------------------|----------|-----------------|
| 1. <i>Rasaraj Rasa</i> | 100 mg twice a day | 2 months | Honey |
| 2. <i>Sudarshan churna</i> | 3 gm. twice a day | 45 days | Water |
| 3. <i>Chitrakadi vati</i> | 500mg twice a day | 1 month | Luke warm water |
| 4. <i>Rasana saptakkwath</i> | 20 ml twice a day | 2 month | Water |
| 5. <i>Shunthi churna with Amrutadichurna</i> | 4 gm. twice a day | 1 month | Luke warm water |

Table-2 : "Panchkarma procedures":

| PROCEDURE | METHOD | DURATION |
|--|--|---------------------------------|
| 1. <i>Vaitaran basti</i> | Tamarind water(40 ml) + jaggery water (40 ml) + cow's urine (75-150 ml) +castor oil (30 ml) | Total 9 <i>basti</i> in 12 days |
| 2. <i>Anuvasana basti</i> | <i>Chinchalavanoil</i> (60 ml) i.e Tamarind + salt in medicated oil | Total 3 <i>basti</i> in 12 days |
| 3. <i>Bhallataka taila</i> | Applied locally on affected joints | 21 days |
| 4. <i>Jalaukavacharan</i> (leech therapy) | Applied 2-3 leaches in every 7 days on knee and ankle joint | 2 months |
| 5. <i>Agnikarma</i> (Treatment with cauterization) | <i>Bindu</i> (Dotted) patterned with <i>Panchadhatushalaka</i> on ankle and elbow joint in every 7 days. | 21 days |

FOLLOW-UP AND OUTCOMES

Haematological parameters were re-investigated on 16-12-2016. At this time Hb-12.6 gm.%. ESR-8 mm at the end of 1st hour. The excellent responses were noted on various parameters in this case in given Table 3 and Table 4. Spinal mobility, stiffness, fatigue, pain, ESR were reduced

SUBJECTIVE CRITERIA-

Comparison of case of Ankylosingspondylitis before treatment and after treatment is given in Table 3.

Ayurvedic management of case of Ankylosing spondylitis:

Table -1 – Oral Medication

Table -2 – Panchakarma Procedures

after treatment. The major factor in Ankylosing spondylitis HLA-B₂₇ was changed into negative. Investigations were done on 18-12-2016. There was an improvement in functional capacity and global condition of the patient. Subjective and objective changes in the patient are being given in the table-

OBJECTIVE CRITERIA-

The significant changes were seen in acute phase reactants (erythrocyte sedimentation



rate) and inflammatory marker (HLA_{B27}).

These changes are described in Table 4.

Table -3 – “Subjective Criteria”

| DOMAIN | INSTRUMENT | BT | AT | RELIEF PERCENTAGE |
|------------|-------------|-----|-----|-------------------|
| Functional | B A S F I | 8.1 | 2.4 | 70.4 |
| Fatigue | B A S D A I | 7 | 2.6 | 72.86 |
| Pain | N R S | 8 | 3 | 72.5 |

- B A S F I - Bath Ankylosing Spondylitis Functional Index⁴.
- B A S D A I - Bath Ankylosing Spondylitis Disease Activity Index⁵
- N R S - Numerical Rating Scale⁶ (0-10)
- BT- Before treatment
- AT-after treatment

Table-4 – “Objective criteria”

| DOMAIN | INSTRUMENT | BT | AT |
|-------------------------|---------------------|--------------------------|---|
| 1.Acute Phase Reactants | ESR | 48 mm at the end of hour | 8 mm at the end of 1 st hour |
| 2.Inflammatory Marker | HLA-B ₂₇ | Positive | Negative |

- ESR- Erythrocyte Sedimentation Rate
- HLA-B₂₇- Human Leukocyte Antigen B₂₇

DISCUSSION

The case was treated on the line of treatment of *Amavata*. *Amapachana*(subsiding *Aama*) was the primary goal of the treatment. *Langhanam*, *Deepanam*, *Pachanam*, and *Mriduvirechana* are indicated in the management of *Amavata*. Foods and drugs *Tikta*(bitter) in taste and *Laghu*(light) in property are indicated in this disease⁷. After *Amapachana*, *Mriduvirechana* with castor oil was given to the patient⁸. Then oral medications were started like *Rasaraj rasa*, *Sudarshanachurna*, *Chitrakadivati*, *Shunthichurna*, *Amrutadichurna*, *Rasnasaptakkwatha*.

Rasaraj Rasahas Balya (anabolic) and *Vajikara*(aphrodisiac) properties and is indicated in paralysis, and in diseases due to *Vata roga*⁹, like *Dhanustambha* (stiffness of spine), *Apatanaka* (spasm of muscles and tetanus like condition) etc. The stiffness of spine and spasm of muscles were the main complaints of the case. Thus, this drug was quiet effective. *Sudarshanchurna* has *Jwraghna* (anti-pyretic) property¹⁰ whereas, *Chitrakadivati* has property of *Amapachana* and is indicated in *Agnimandya*(digestive insufficiency)¹¹. So, *Sudarshanachurna* along with *Chitrakadivati* were prescribed. For reducing inflammation, stiffness and pain over the joints, *Rasnasaptakkwatha* was given as it



has *Vedanashamak* (Analgesic) and *Shothaghna* (anti-inflammatory) properties¹². *Shunthichurna* along with *Amrutadichurna* was given with Luke warm water. *Shunthi* is a potent analgesic with various Rheumatic conditions, subsides *Vata-kaphadosha* and ignites the digestive power due to *Ushnaveerya* (hot potency)¹³ and is a potent analgesic with various Rheumatic conditions. *Amrutadichurna* as indicated in *Aamavata*¹⁴ was used with *Ushnajala* as it subsides *Vata-kaphadosha*, and acts as *Srotoshodhaka*, appetizer, *Jwaragna*. *Bhallatakataila* was used locally over the affected joints (sacro-iliac, knee and ankle joints) as there were excessive stiffness, pain, swelling, and *Sama* (*aamaphase*) condition due to vitiated *Kapha-dosha* the *ushna* and *teekshnaguna* of *Bhallatakataila*¹⁶, are potent suppressors of *Kaphadosha* and *Aama*.

Along with oral medications *Panchakarma* procedures like *Vaitaranabasti*, *Agni karma*, and *Jalaukavacharana* were done. *Vaitaranabasti* is a combination of the drugs like cow's urine, jaggery, Tamarind, Rock salt¹⁷ having *Ushna-Teekshna*, *Shothghna* (anti-inflammatory) and *Aamahara* (suppression of *Aamadasha*) properties. *Anuvasanabasti*

with *chinchalavana* oil (tamarind and rock salt, mixed in medicated oil) were used due to *shothaghna* (anti-inflammatory) as well as *balya* (anabolic) properties. *Jalaukavacharana* (leech therapy) suppresses the *Pitta dosha*, which reduces inflammation and local temperature¹⁸. *Jaluaka* (leech) was helpful to alleviate the disease from the elbow joint, ankle joint as there were much stiffness and pain. So restrictions of the joints were there. *Agni karma* was done with *Panchdhatushalaka* in *Bindu* pattern (dotted). *Agnikarma* with *Shalaka* (with iron & copper) is indicated in *Mansagatavikara* (muscle diseases)¹⁹, so stiffness and pains were reduced through *Agni karma*.

These drugs and procedures have the properties to treat the manifestations of Ankylosing spondylitis surely as pain, stiffness, inflammation, scoliosis, kyphosis, and fatigue and weight loss. At present the patient is under examinations and observations as well as oral medications. The quality of life of the case has improved. There is no worsening of any sign or symptom till 09-03-2017. This is important finding considering the bad prognosis and unsatisfactory treatment in modern sciences.



CONCLUSION

The patient was diagnosed on the basis of Ayurvedic concept of *Dosha-Anshanshakalpana* where *Agnimandya* was the core concept lying. Line of treatment mentioned in *Amavatachikitsawas* followed in Ankylosing Spondylitis case and got significant results without using any allopathic medication as supportive therapy. The Ayurvedic treatment with combination of drugs and *Panchakarma* procedures proved satisfactory in AS. This approach of proper Ayurvedic diagnostic criteria (*Dosh - anshanshakalpana*) would be surely helpful for further treatment and research work.



REFERENCES

1. Davidson's principles and practice of medicine, edited by Nicholas A. Boon, Nicki R. Colledge, Brian R. Walker, John A. A. Hunter, Elsevier Ltd., 20th edition 2006, p. 1106
2. Davidson's principles and practice of medicine, edited by Nicholas A. Boon, Nicki R. Colledge, Brian R. Walker, John A. A. Hunter, Elsevier Ltd., 20th edition 2006, p. 1108
3. Prof. Yadunandana Upadhyaya, Madhavanidanam by Shri Sudarshan Shashtri, Vol. 1, Varanasi; Chaukhamba Sanskrit Sansthan; 20th edition 1998, Amavatnidanam (24/7-9), p. 462-463.
4. Calin et al, J. Rheumatol 1994;21:2281-85
5. Garrett et al, J. Rheumatol 1994;21:2286-91
6. Mccaffery, M., Beebe, A., et al. (1989). Pain: Clinical manual for nursing practice, Mosby St. Louis, MO.
7. Prof. Ramanath Dwivedy, Chakradatta of Chakrapanidatta by Dr. Indradeva Tripathi, Varanasi; 2005; Athamavatachikitsa (25/1) p. 166
8. Prof. Ramanath Dwivedy, Chakradatta of Chakrapanidatta by Dr. Indradeva Tripathi, Varanasi; 2005; Athamavatachikitsa (25/6) p. 166
9. Mishra S., editor Sidhiprada Hindi commentary on Bhaishajyaratnavali, Chaukhamba Subharati Prakashan; Varanasi; 2007, Vatavyadhirogadhikara (26/198-202), p. 535-536
10. Dr. Brahmanand Tripathi, Sharangadhara Samhita, Chaukhamba Subharati Prakashan; Varanasi; 2001, Madhyamkhanda (6/27-37), p. 177-178
11. Acharya Vidhyadhar Shukla & Prof. Ravidatta Tripathi. Charak Samhita, Vol. 2, Delhi; Chaukhamba Sanskrit Pratishthan; 2013. (Chikitsasthana 15/96-97), p. 374
12. Dr. Brahmanand Tripathi, Sharangadhara Samhita, Chaukhamba Subharati Prakashan; Varanasi; 2001, Madhyamkhanda (2/86-87), p. 146
13. Acharya Vidhyadhar Shukla & Prof. Ravidatta Tripathi. Charak Samhita, Vol. 1, Delhi; Chaukhamba Sanskrit Pratishthan; 2013. (Sutrasthana 27/296), p. 419
14. Prof. Ramanath Dwivedy, Chakradatta of Chakrapanidatta by Dr. Indradeva Tripathi, Varanasi; 2005; Athamavatachikitsa (25/14) p. 167
15. Acharya Vidhyadhar Shukla & Prof. Ravidatta Tripathi. Charak Samhita, Vol. 2, Delhi; Chaukhamba Sanskrit Pratishthan; 2013. (Chikitsasthana 3/144), p. 91

16. AcharyaVidhyadharShukla&Prof.Ravid
attaTripathi. CharakSamhita, Vol. 2, Delhi;
Chaukhamba Sanskrit Pratishthan; 2013.
(Chikitsasthana 1/2/17-19), p. 24
17. Prof.RamanathDwivedy, Chakradatta of
Chakrapanidatta by Dr.IndradevaTripathi,
Varanasi; 2005; Niroohadhikara (73/32) p.
455
18. Dr.Anantram Sharma. SushrutSamhita,
Vol. 1, Varanasi;
ChaukhambaSubharatiPrakashan; 2012.
(Sutrasthana 13/4) Page no. 95
19. Dr.Anantram Sharma. SushrutSamhita,
Vol. 1, Varanasi;
ChaukhambaSubharatiPrakashan; 2012.
(Sutrasthana 12/4) Page no. 85