

ANKYLOSING SPONDYLITIS VIS-À-VIS AMAVATA**Kadam Krishna Namdeo¹, Jadhav Viraj Vilas²**¹Ph.D. Scholar, Asst. Professor, Department of Roganidan and Vikriti Vigyan, R A Podar Medical (Ayurved) College, Worli, Mumbai, Maharashtra, India²Associate Professor, Department of Rachna Sharira, Rani Dullaiya Smriti Ayurved P.G. College, Bhopal, India**ABSTRACT**

Ankylosing spondylitis is a common disorder in the boys between 15-25 years. There is insidious, progressive involvement of spinal joints especially sacroiliac joint. Movements of joints are restricted due to pain and stiffness. Later, there is kyphosis and progressive ankylosis. Muscles spasms and atrophy may be present. Ankylosing spondylitis belongs to a group of rheumatic diseases known as the spondyloarthropathies (SpA), which show a strong association with the genetic marker *HLA-B27*. Inflammatory back pain and stiffness are prominent early in the disease, whereas chronic, aggressive disease may produce pain and marked axial immobility or deformity. Modern medicine has no established treatment for it. From the Ayurvedic perspective, the disease can fall under *amavata*, which may be effectively managed when intervention is started in its early stages. *Niruha basti* with *Balaguduchyadi yoga*, combined by *shamana* treatment with *Simhanada guggulu* have been found effective in reducing its progression. This article presents a single case report in which these treatments achieved considerable success.

Key Words –Ankylosing spondylitis, *Amavata*, *Niruha basti*, *Balaguduchyadi yoga*, *Simhanada Guggulu*

INTRODUCTION

Ankylosing spondylitis is 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 [1]. Ankylosing spondylitis belongs to a group of rheumatic diseases known as spondyloarthropathies (SpA), which have a strong association with genetic marker *HLA-B27*. [1,2] . It usually develops in the second or third decade of life, [2] affecting young men more frequently than young women, (male–female ratio ranging from 2.5 to 5:1)[7].

Axial radiographic findings also include marginal bridging syndesmophytes, interapophyseal joint fusion, and “squaring” of lumbar and thoracic vertebrae, collectively producing the classic appearance of a “bamboo spine.” Clinical course and

disease severity are highly variable. Prolonged occurrence of the disease leads to ankylosis of the spine leading to kyphosis and other spinal abnormalities. Patients with Ankylosing spondylitis are at risk of complications, some of which may be life-threatening like restrictive lung disease, [5] cauda-equina syndrome, post-traumatic intervertebral fractures, osteoporotic compression fractures, or spondylodiscitis.[6] The differential diagnosis for such a presentation includes collagen vascular diseases. It is a chronic, systemic, inflammatory, rheumatic disorder of uncertain etiology primarily affecting the axial skeleton [1].

In modern science, long-term use of nonsteroidal anti-inflammatory drugs (NSAIDs) and a life-long program of appropriate regular exercises has been the mainstay of symptom control for almost

six decades. Traditional disease-modifying antirheumatic drugs (DMARDs) used for rheumatoid arthritis (RA) are ineffective in the typical Ankylosing spondylitis patient with disease limited to the axial skeleton, including hip and shoulder joints.[2] Regimented Ayurvedic intervention in the early stages of the illness can be highly beneficial in that further progression of the illness can be prevented. In present study we present the case of a 23-year-old male patient, whose early diagnosis of Ankylosing spondylitis permitted successful management according to Ayurvedic principles. Though initially bed-ridden due to severe pain, he returned to normal life. The sacroiliac and hip joints are the most affected. The cervical spine is involved late in the disease. Other joints that may be involved include the ankles, wrists, shoulders, elbows and small joints of the hands or feet. Morning stiffness and nocturnal back pain are hallmarks. Constitutional features (e.g., fever, anorexia, weight loss) are not uncommon at the onset. With progressive axial involvement, pain and stiffness result in difficulty in walking and other daily activities. With regard to genetic marker, *HLA-B27*, linked with Ankylosing spondylitis.[4] the actual risk of Ankylosing spondylitis developing in an *HLA-B27*-positive person is estimated at 1–2%. But *HLA-B27* determination is seldom necessary to establish the diagnosis. Only in questionable cases without distinctive radiographic changes may the presence of *HLA-B27* be of diagnostic value. Lumbosacral spine X-ray can demonstrate sacroiliitis.[7]

Case Report

A 23-year-old male patient, who had apparently been normal one and half a month previously, insidiously developed low back pain, particularly on the right side, which progressively worsened over the following three days. On the fourth day he was unable to get out of bed, following which he developed fever and pain in bilateral knee and shoulder joints and was taken to an orthopedic specialist who diag-

nosed as having ankylosing spondylitis. He was managed accordingly for a week with allopathic medicine, but didn't get any relief.

When he visited to our OPD he presented the following complaints: severe pain in low back and bilateral knee joints, along with morning stiffness for more than 1 hour, and intermittent fever with associated chills and head ache. His low back pain radiated to the right lower limb. It was more during morning and evening hours, subsiding in the middle of the day. There was no history of other constitutional features like vomiting, abdominal pain, or skin rashes, nor of trauma or other major medical or surgical conditions. The patient's appetite was greatly reduced and was accompanied by constipation. Urine was passed without difficulty or burning sensation, but sleep was disturbed by the combination of pain and fever.

Examination

Vitals – pulse 80/min, regular, BP 120/74 mmHg, temperature 99.4°F (oral, 9 am), and respiratory rate – 20/min. The nervous system, cardio-vascular system, and respiratory system has not detected any abnormality. Per abdomen examination was

normal. Spine – mild scoliosis was observed in the thoracolumbar region toward right, lumbar lordosis obliterated, and tenderness over L3, L4, L5 region, also tenderness over bilateral sacroiliac joints. Other joints – there was swelling, temperature, and tenderness over bilateral knee joints and tenderness in the right hip. Movements were restricted and painful. straight leg raising test was positive on right. The investigations had the following findings. Blood Hb 10.6 g/dl, ESR 140mm/h, TLC 15,300. DLC: N 79%, L 18%, E 2%, B 01%. random blood sugar 110 mg/dl, CPK 138 U/L, serum creatinine 1.0mg/dl. Widal test – negative. Human leukocyte antigen (HLA) – B27 by flow cytometry – positive. HLA B27 by PCR (polymerase chain reaction) – detected. Urine examination was within normal limits except for pus cells 4–5/HPF.

MRI lumbar spine revealed altered marrow signal (hypo-intense on T1 and hyper-intense on T2 weighted MRI) involving right sacral ala and iliac bones adjacent to sacroiliac joints indicating bilateral sacroiliitis, more on the right. The patient was thoroughly analyzed according to Ayurvedic norms, from which, by applying the method of exclusion, he was diagnosed as having *Amavata*[9] and a treatment strategy was formulated. The *vyadhi* (disease) was considered *yapya*[10] (treatable).

Treatment Plan–

Initially the patient was administered treatment for his fever (*Jwara chikitsa*), [10] as fever was one of the main presentations. *Amrithothara kwatha*[12] 60ml thrice daily, and *Amrutharishta*[12] 30ml twice daily were advised. Gradually over a period of 1 week, the modern medicines were tapered and stopped. After 2 weeks of the above medications, his fever was got subside. Slowly the fever started subsiding. When the fever had gone, *Lepa*[10] (external application of medicated paste) was applied to the sacroiliac and other painful joints together with a heated mixture of *kottamchukkadi choorna*[12] and *dhanyamla*. [12] Swelling in the knee joint subsided. He was managed for a period of 1 month, after which he was able to walk without support, and the severity of the pain reduced.

After subside of fever, *dipan*, *pachana* medication and proper oleation and fomentation therapy was carried out. Accordingly *Niruha Basti* [10] (medicated enema) was planned with modified *Balaguduchyadi yoga*[10] mentioned for *vata vikara* (treatment of *vata*)

Contents of *Balaguduchyadi basti*

Dravya Contents Quantity

Makshika Honey 200ml, *Lavana Saindhava* (rock salt) 15g *Sneha Sahacharadi taila*[6] 200ml *Kalka Paste*[10] prepared out of *Yavani* (*Trachyspermum ammi L*), *Madanaphala*

(*Randia spinosa*), *Bilwa* (*Aegle marmelos*), *Kushta* (*Saussurea lappa*), *Vacha* (*Acorus calamus*), *Shatahwa* (*Anethum sowa*), *Musta* (*Cyperus rotundus*), and *Pippali*

(*Piper longum*).40g *Kwatha* Decoction[10] prepared out of *Bala* (*Sida cordifolia L*), *Amritha* (*Tinospora cordifolia*), *Thriphala* (*Terminalia chebula*, *Phyllanthus embilica*, *Terminalia bellirica R*), *Rasna* (*Pluchea lanceolata*), *Dashamoola* (*Desmodium gangeticum*, *Uraria picta*, *Solanum indicum*, *Solanum xanthocarpum*, *Tribulus terrestris*, *Aegle marmelos*, *Clerodendron premnoses*, *Oroxylum indicum*, *Gmelina arborea*, *Pterospermum suaveolens*),

Madanaphala (*Randia spinosa*)[3] 400ml *Basti* (enema) was administered according to *kala basti*[10] format during which six *niruhās* (decoctions) and nine *anuvāsanas* (oil) were administered. The medicine for *niruha basti* (decoction enema) was prepared by mixing the drugs in a mortar with pestle, adding component medicines in the following order: *makshika* (honey), *lavana* (salt), *sneha* (oil), *kalka* (paste), and *kwatha* (decoction). It was administered on an empty stomach, using a conventional *basti netra* (syringe) and *rexine* encase as *basti putaka* (bag). *Sahacharadi taila* was used for *anuvāsana basti* (oil enema), the dose being 60ml, administered on alternate days after food. Following the course of *basti* (enema therapy), the patient experienced significant improvement in the pain and stiffness in his low back and other joints. Subsequently, the following *shamana*[10] (pacifying) medicines were given for a period of 2 months – *Simhanada guggulu*[11] one tablet thrice daily. As his Hb percentage was down to 9 mg%, *Ayaskrithi*[10] 30ml twice daily was also administered for a period of 1 month, which brought the Hb to 10.1mg%. Mild spinal exercises were also advised to prevent occurrence of stiffness in due course of time. [Table 2]

OBSERVATION AND DISCUSSION –

Table 2: List of medicines administered during the treatment course [11,12]

Formulation	Dose	Duration	Mechanism
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<i>Amritothara Kwa-tha</i>	60ml thrice daily	14 days	<i>Jwara shamak</i>
<i>Amritarishta</i>	30ml thrice daily	14 days	<i>Jwara shamak</i>
<i>Simhanada guggulu</i>	One tab thrice daily	60 days	<i>Amavata</i>
<i>Ayaskriti</i>	30ml twice daily	30 days	<i>Pandu</i>

The first step in initializing Ayurvedic treatment is to arrive at as precise a diagnosis as possible based on its principles. [10] Rather than making an explicit correlation of

Ayurveda's classification of *vyadhis* (diseases) with those of modern medicine, it is always better to formulate an Ayurvedic diagnosis based on the presenting features of the particular patient. In the present case, the patient had *Kati shoola* (low back pain), *Ruja in janu* and *amsa sandhis* (pain in knee and shoulder joints), *Shopha in janu sandhis* (swelling in knee joints), *Jwara* (fever), *Aruchi* (loss of appetite), *Vibandha* (constipation), *Alasya* (lethargy),

Stambha (stiffness of body parts and joints), and *Gourava* (heaviness).[9,10] The pathologies considered for differential diagnosis within the Ayurvedic paradigm included *Jwara*,

Amavata, *Vatarakta*, and *Gridrasi*. [9,10] Even though the patient had *jwara* (fever) as a feature, it was excluded because it was not the predominant presentation, which was pain in the low back and other major joints. Also *jwara* is an acute symptom, rather than chronic like AS, so in this context it could only be considered a symptom. Some of the presentations bore a similarity to *vatarakta*, but that was excluded by the absence of specific features of *rakta*

(blood) involvement like *vaivarnya* (discoloration of skin), *kandu* (itching) and involvement of small joints of hands and feet. *Gridrasi* was similarly excluded by the patient having other unrelated features like *jwara*, *vibanda*, and pain in knee and shoulder joints. The patient had features of *ama*[5] (undigested toxic matter) in his body: *jwara* (fever), *vibandha* (constipation), *alasya* (lethargy), *gourava* (heaviness), *shopha* (swelling), and *aruchi* (loss

of appetite). Along with this was the pain in *kati* (low back) and other *sandhis* (joints), all pointing toward the diagnosis of *amavata*. [9] One thing to be noted is we cannot generalize that every case of Ankylosing spondylitis will have features of *amavata*, Ayurvedic diagnosis should always be based on presenting features. Consequently treatment was planned to first remove the *ama* (undigested matter) by improving digestion with *deepana*[5] (medicine), and digesting the *ama* with *pachana*[5] ones. Later, *Niruha basthi* (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. During initial stages of treatment, the patient had to endure increased amounts of pain due to the absence of pain killers. As he gradually started to improve, and once the fever had subsided, recovery was fast. After the course of *basti*, his appetite improved and he was totally relieved of pain. He was able to move his joints freely without stiffness and carry out his day-to-day activities. His ESR, which was initially 140/1st hour, had come down to 05/1st hour after 3 months of treatment. Considering the nature of the illness, even though the patient was free from complaints, chances of relapse were considerable.

CONCLUSION:

The patient was diagnosed in Ayurvedic terms and treated accordingly. On this basis, the *vyadhi* (disease) was identified as being *yapya*[10] and treatment was planned accordingly.

Niruha basthi (madhutailika) forms the mainstay of treatment in cases of rheumatic diseases provided it is administered at the right stages of the illness. Moreover, according to Ayurveda, future exacerbation

tion and relapse can be prevented by proper diet and continuing medication. Further clinical studies should be conducted to validate the treatment principles applied in this case.

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