Ayurvedic Management of Spondyloarthritis with Sacrolitis

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Abstract

Seronegative spondyloarthropathies belong to a group of rheumatic diseases; share certain clinical characteristics, inflammatory back pain and stiffness are prominent early in the disease, whereas chronic, aggressive disease may produce pain and marked axial immobility or deformity. Some are strongly associated with the HLA-B27 allele. Rheumatoid Factor (RF) is negative in the spondyloarthropathies (hence, they are called Seronegative spondyloarthropathies). They include ankylosing Spondylitis, reactive arthritis, psoriatic arthritis, and other disorders. Modern medicine has no established treatment for it. From the Ayurveda perspective, the disease can fall under amavata, which may be effectively managed when intervention is started in its early stages. Dasamula niruha vasti, combined with Shamaana treatment with Brihatvata chintamaniras and Trayodasaanga guggulu, Simhanada guggulu, Amavattinras and Dasamularishtha have been found effective in curbing its progression. This article presents a single case report in which these treatments achieved considerable success.

Keywords: Amavata; HLA B27 (negative); Niruha vasti; Spondyloarthritis; Sacrolitis

Introduction

Ankylosing Spondylitis (AS) is a systemic disorder characterized by inflammation of the axial skeleton, large peripheral joints, and digits; nocturnal back pain; back stiffness; accentuated kyphosis; constitutional symptoms; aortitis; cardiac conduction abnormalities; and anterior uveitis. Diagnosis requires showing sacroiliitis on X-ray. Treatment is with NSAIDs or tumor necrosis factor antagonists and physical measures that maintain joint flexibility. Ankylosing Spondylitis is 3 times more frequent in men than in women and begins most often between ages 20 and 40. The HLA-B27 genetic marker is not of diagnostic value. The pathophysiology probably involves immune-mediated inflammation. Corticosteroids injected into the sacroiliac joints may occasionally help severe sacrolitis [1].

Here I present a case whose early diagnosis of Spondyloarthritis with Sacrolitis (left) with HLA B-27 (sero-negative) turning to Bamboo spine with sclerotic arthritic changes in the hip joint (both) permitted successful management according to Ayurvedic principles. Ayurvedic treatment in the early stages of the illness can be highly beneficial in that further progression of the illness can be prevented. Pradhana dasha is vitiated vata associated with kapha. Hence kati vasti and yogavasti are selected as the choice of treatment.

Case History

A 29-year-old female patient, who had been normal four years before, insidiously developed back pain often nocturnal and of varying intensity eventually becomes recurrent, radiating towards both lower limbs (more in the upper 1/3rd posterior side of both thighs), which progressively worsened by walking, climbing stairs, coughing, brushing teeth, changing position while sleeping, and bending. She is unable to get down from bed, and was taken to an orthopaedic specialist who diagnosed it as Spondyloarthropathies with left Sacrolitis (HLAB27 negative) but subjected to both sacroiliac joints, Hypovitaminosis-D, mild hypocalcaemia, Monteux negative; Brucella (1:40), Hypothyroidism negative but subjected to both sacroiliac joints, Hypovitaminosis-D, mild hypocalcaemia, Monteux negative; Brucella (1:40), Hypothyroidism (just detected), Seizures on Zeptol 250 mg once daily, Osteopenia (low BMD). She was managed accordingly, following which she developed severe pain and tenderness over sacroiliac joint, on the posterior 1/3rd of both thighs. After thorough examination, she was diagnosed as having Spondyloarthropathy with Sacrolitis converting into Bamboo spine (Ankylosing changes). She came to the out-patient department with the following complaints: severe radiating pain in the lower limbs, low back ache, tenderness on the sacroiliac joint, constricted feeling at the hip joint, unable to walk freely due to stiffness and pain. Her low back pain radiated more to the left lower limb. It was more during exertion and changing position in sleep. Pain aggravates either premenstrually or post menstrually. There was no history of other constitutional features like vomiting, abdominal pain or skin rashes, nor trauma or other major medical or surgical conditions. The patient’s appetite was normal and urine was passed without difficulty or burning sensation, but sleep was disturbed due to pain. Without pain killer she cannot walk since 4 years. She has been under stress, and has insomnia. She cannot sleep in supine position; since 4 years she is sleeping in prone position only. She feels pressure, pain at the coccygeal region and posterior part of both the thighs on sitting for more than 5 minutes. Sometimes she had the same feeling in standing position also.

Family history

The patient’s mother had a history of Hypothyroidism, Diabetes, and Gastritis. The patient had been prescribed the following medications: TAB Thyrnonorm (30 mcg) 1 daily morning on empty stomach for thyroid problem, Tab. Sazo/Salazar (500 mg) daily 1 morning/night after food., Tab. Esothine (90 mg) 1 after food s.o.s for pains, Cap. TRIOM (20 mg) daily 1 night at bed time, Tab. Ambyclal (500 mg) daily 1 afternoon, Cap. Chelecal-60k 1 per/week (Sundays,) for 4 years, Esgipyrin gel for external application, Tab Medcort (6 mg) once after noon so (not used).

Examination

Vitals-pulse 86/min, regular, full volume, BP 110/70 mm Hg (right arm sitting), and respiratory rate was 22/min. The nervous system, cardio-vascular system, and respiratory system were within normal limits (WNL). Per abdomen examination was normal.

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Spine—mild scoliosis was observed in the thoracolumbar region towards left, lumbar lordosis obliterated, and tenderness over bilateral sacroiliac joints, both lower limbs and more in the left hip. Movements were restricted and painful. SLR (straight leg raising test) was positive on right. The investigations had the following findings. Blood HB 11.8 g/dl, ESR 31 mm/h, TC 8400. DCN 68%, L 28%, E 2%, B 0%, M 2%, random blood sugar 84 mg/dl, platelets 2.4 lacs/cumm, C- Reactive protein not elevated, serum creatinine 1.0 mg/dl, serum calcium 8.6 mg/dl, serum phosphorus 3.4 mg/dl, SGPT(ALT) 14 IU/L, T3 1.56 mg/ml, T4 9.11 mcg/dl, TSH 1.34 mcg/dl. Widal test was found to be negative. Human Leukocyte Antigen (HLA)-B27 by flow cytometry-negative (-0.61), RA factor negative. Urine examination was within normal limits except for pus cells 4-5/HPF. USG abdomen-was normal. MRI lumbar spine revealed small ill-defined hyper intense marrow lesions are seen in the left sacral ala and postero-inferior aspect of ilium. There is a small 1.2 cms well defined rounded hypo to intermediate signal intensity lesion on the right side of body of sacrum posteriorly. Rest of bony pelvis is normal as seen on 30/3/2009. MR Image morphology shows early spondylitis changes in lumbar spine suggesting sclerotic bone lesion on 30/3/2009. MRI Pelvis for hip joints showed evidence of small (18x16 mm) well defined area of altered signal noted in the right sacral ala posteriorly. This is iso to hyper intensity in T1, T2W1 and hypo intensities (suppressed in STIR images). Rest of sacrum and bilateral sacroiliac joints are normal except for small patchy hyper intensities in iliac margin of left SI joint inferiorly and subtle involvement of sacral margin. MR Image morphology is in favour of small well defined area of altered signal in the right sacral ala posteriorly-possibilities includes Haemangioma/Intraosseous lipoma. Small patchy hyper intensities in iliac margin of left SI joint inferiorly and subtle involvement of sacral margin-possible secondary to left Sacrolitis on 25/9/2009. Skeletal Scintigraphy suggestive of left Sacrolitis and early arthritic changes in hip joints 14/12/2009. MRI Pelvis showed well defined oval fatty signal intensity lesion in the right ala of sacrum at s2 level. Intraosseous lipoma/local fatty marrow was found on 17/03/2010. F-18 Bone scan reveals slight irregularity of joint margin in left sacroiliac joint on CT images.

According to Ayurvedic norms, the patient was diagnosed as having Vata Pradhana Amavata with asthi majja dhatu kshaya [2] and a treatment strategy was formulated. The disease was considered yapya [3] (treatable). The patient is accordingly counselled and educated regarding the nature of illness and treatment was then begun.

Treatment

Initially the patient was given Dhanvantaram tailam kati vasti for 1 hour followed by Sahacharadi taila anuvasana Vasti (oil enema) [4]. Sweda (Sudation) given after external application of Dhanvantaram taila for pain relief (no massage only external application of oil). Soon after sweda patient got relief from katigraha (stiffness of hip and back), pain in low back, and her appetite was increased. After kati vasti, sweda, and anuvasana vasti, intake of analgesics was stopped and sleeping without disturbance due to absence of pain. Severity of aggravation in pain became tolerable, mild pain is present inducing undisturbed sleep from 1st day of treatment. After sweda, nerve constricted feeling along the lower limbs decreased. Trayodasanga guggulu [5] tablet 250 mg thrice with warm water, Brihatvatavachintamanirasis [6] tablet 125 mg once daily, as internal medication, given for 10 days, after 5th day onwards, she started feeling lowered stiffness in the hip and sacral region. The severity of tenderness on touch at the sacroiliac joint and on the posterior side of upper 1/3rd changed to mild tenderness on pressure after 1st day of treatment.

During this whole period, the patient’s diet was restricted strictly to rice with vegetables, hot jeera water to drink, avoid amlarasa (sour), oily food, deep fried items, cold items (ice creams, fridge items), curd, milk items, avoid cold exposure, cold water bath and cold food. The patient had 50% relief from the low back pain, and tenderness in sacroiliac joint, and was only bothered by on and off and occasional pain by strain, walking. Accordingly Dasamula Niruha vasti [3], (medicated enema modified) was planned mentioned for vata vikara (treatment for vata) (Table 1).

Vasti (enema) was administered according to yogavasti [3], format during which 3 niruha (decoctions) and 5 anuvahasanas (oil) were administered. The medicine for niruha vasti (decotion enema) was prepared by mixing the drugs in a mortar with pestle, adding component medicines in the following order:

Makshika (honey), lavaana (salt), sneha (oil), kalka (paste), and kwatha (decocition). It was administered on empty stomach, using a conventional vasti netra (syringe) and reexcise enase as vasti putaka (bag). Sahacharadi taila was used for anuvasa vasti (oil enema), the dose being 125 ml administered on alternate days after food. Following the course of vasti (enema therapy), the patient experienced significant improvement in the pain and stiffness, tenderness in her low back. Subsequently, the shamanas medicines were given for a period of 2 months. Trayodasanga guggulu [5], one tablet thrice daily, Brihatvatavachintamanirises once daily for 7 days, and Simhanada guggulu, Amavatariras [5], every day thrice with warm water. Mild spinal exercises, walking in morning 8-9 am and evening time between 4-5 pm were also advised to prevent occurrence of stiffness in due course of time (Table 2).

Result

During initial stages of treatment, the patient had to endure increased amounts of pain due to the absence of pain killers. She gradually started to improve. After the course of vasti; she was totally relieved of pain. She was able to move her position freely without stiffness and carry out her day-day activities. Her ESR, which was initially 31/1st 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.

Discussion

In this case vitiated vata and kapha are the doshas; adhisthana (site of origin) is Kati pradesas (sacrum) and lower limbs. Vitiated Apanavata causes disturbance in walking in terms of gait, stiffness, pain in lower limbs, unable to change the posture in bed, unable to stand for more than 2 minutes. Pain aggravated by exersion, by sitting, posture change, brushing. The diagnosis as vataja amavata is supported by trika pradesas adhisthanas, disease affecting hip, sacrum and in lower limbs, aggravated by exertion. Stiffness is due to shifting of cartilage by fibrous tissue, i.e. sclerotic changes is due to aama, in which kapha is vitiated.

Dravya | Contents | Quantity
--- | --- | ---
Makshika | Honey | 200 ml
Lavana | Saindhava (rock salt) | 15 gm
Sneha | Sahacharadi taila [4] | 200 ml
Kwatha | Decocition, [3] prepared out of Dasamula kwatha churna | 400 ml

Table 1: Contents of Dasamula niruha vasti.
Normal kapha is responsible for maintenance of smoothness between the vertebræ and inside the bones, preventing sclerotic changes.

Clinical course and disease severity are highly variable depending on the vitiation of ama and vata. In the present case, the patient had kati graha (stiffness of lower back), kati shoola (low back pain), and ruja in pada, trika-pada Sthamba (stiffness of sacrum and lower limbs) [2,3]. The pathologies considered for differential diagnosis within the Ayurvedic paradigm included Amavata, Vatarakta, and Gridrasi [2,3]. Vatarakta was excluded by the absence of specific features of raktta (blood) involvement like vaivarnya (discolouration of skin), kanda (itching) and involvement of small joints of hands and feet. Gridrasi was excluded by the patient having other unrelated features like vibanda, and pain in Sacrum and hip joint. The patient had features of vataja ama vata [3] (severe pain aggravated by work without ama symptoms) in her body: Kati shoola (low back pain), Ruja in both lower limbs more on left side (pain in upper 1/3rd of both thighs), Sopha in trika sandhis (swelling in left sacroiliac joint), Sthamba (stiffness of back and hip joints, along the both thighs more in left side), and absence of gourava (heaviness of body), all pointing towards the diagnosis of vataja amavata [2]. Stiffness and pain are due to kapha kshaya and vata prokopa. Consequently treatment was planned to first remove the vitiated vata in amavata by expelling vata dosha by yoga vasti (decoction enema, oil enema alternately) was administered as the principle treatment for Vata dosha. In due course, shamana (pacifying) medicines were advised to prevent relapse and improve the general health of the patient.

Conclusion

The patient was diagnosed in Ayurvedic terms and treated accordingly. On this basis, the vyadh (disease) was identified as being yapya [3] (treatable), and treatment was planned accordingly. Niruha vasti forms the mainstay of treatment in cases of chronic rheumatic diseases, where vata is Pradhana dosha, and ama hara treatment to be done in initial stages where ama is the Pradhana dosha provided it is according to Ayurvedic norms, administered at the right stages of illness depending on the state of vitiation of doshas and chronicity. Even though the claim cannot be made that the patient is completely cured of the illness, as of now she is symptomatically normal, which in the context of modern medicine is tantamount to returned to health, though this is not true in Ayurveda. Moreover, according to Ayurveda, future exacerbation 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.

References


<table>
<thead>
<tr>
<th>Name of formulation</th>
<th>Dose</th>
<th>Duration</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trayodeshanga gugglu [5]</td>
<td>500 mg thrice daily with warm water</td>
<td>First 7 days</td>
<td>To reduce the Pain, Vata Shamana in vata chikitsa</td>
</tr>
<tr>
<td>Sinhanada gugglu</td>
<td>500 mg thrice daily with warm water</td>
<td>3 months</td>
<td>Shamana in Amavata chikitsa</td>
</tr>
<tr>
<td>Amavatari ras [5]</td>
<td>250 mg thrice daily</td>
<td>2 months</td>
<td>Shamana in Amavata chikitsa</td>
</tr>
<tr>
<td>Dasamularishta,Aswagandharihsita [5]</td>
<td>30 ml thrice daily</td>
<td>3 months</td>
<td>Shamana in Amavata chikitsa, vata-kapha hara, nervine tonic</td>
</tr>
<tr>
<td>Prawal pishiti, Godanti bhasmsa 10 gm, Svarna Makshika bhasmsa 10 gm mixed [5]</td>
<td>60 mg twice daily with honey</td>
<td>60 days</td>
<td>Prawal as Calcium supplement in osteoporosis, osteopenia, Godanti bhasmsa acts as pitta hara in Sacrolitis, Svarna Makshika bhasmsa to act just as gold in joint degenerative changes, superoxide dismutase action as shown by gold in Amavata chikitsa</td>
</tr>
<tr>
<td>Brihatvata chintamani ras [5]</td>
<td>125 mg once daily/twice depending on severity of pain tolerance</td>
<td>Started from 1st day of treatment, given for 10 days</td>
<td>Amavata chikitsa</td>
</tr>
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Table 2: List of medicines administered during the treatment course.