Case report

Ayurvedic approach for management of ankylosing spondylitis: A case report

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Abstract

Ankylosing spondylitis (AS) is a rheumatic disease with various skeletal and extra skeletal manifestations. No satisfactory treatment is available in modern medicine for this disorder. Various Panchakarma procedures and Ayurvedic drugs have been proved useful for these manifestations. We present a case of AS, which was treated for two months with a combination of Panchakarma procedures and Ayurvedic drugs. Ayurvedic treatments, in this case, were directed toward alleviating symptoms and to reduce severe disability. The patient was considered suffering from Asthimaja gata vata (~Vata disorder involving bone and bone marrow) and was treated with Shalishastika Pinda Svedana (sudation with medicated milk) enema with Mustadi Yapana Basti (enema with medicated milk) with Anuvansa (enema with Asvagandha oil) in 30 days schedule along with oral Ayurvedic drugs for two months. Pratimarsha nasya (nasal drops) with Asvagandha oil) in 30 days schedule along with oral Ayurvedic drugs for two months. Anu Taila (oil) for one month was given after completion of Basti procedure. Patient’s condition was assessed for symptoms of Asthimaja gata vata and core sets of Assessment of Spondylo Arthritis International Society showed substantial improvement. This study shows the cases of AS may be successfully managed with Ayurvedic treatment.

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1. Introduction

Ankylosing spondylitis (AS) is a chronic inflammatory disorder that primarily involves the sacroiliac joints and the axial skeleton. There is also a variable involvement of peripheral joints and articular structures. Musculoskeletal pain, stiffness, and immobility of spine due to AS is a major burden. Prevalence of AS in India is 0.03% as per surveys conducted by Bone and Joint Decade India from 2004 to 2010 [1]. Unavailability of satisfactory treatment in bio-medicine leads to permanent deformity in this disease. There is a need to search satisfactory treatment available in other medical system. A patient with AS was treated with Ayurvedic management of Ama-vata [2]. The manifestation of Vata Vyadhi (different disease due to Vata dosha) is prominent in fully established AS. In AS; the enthesal fibrocartilage is the major target of the immune system, and there may be destructive synovitis. The myxoid subchondral bone marrow is mainly affected. There is the destruction of nearby articular tissues or joint tissues as disease progresses. The new and original cartilages are replaced by bone through fusion. This causes fusion of the joint bones that causes stiffness and immobility. This fusion leads to bamboo spine formation, a hallmark of AS. Ayurveda interprets these changes as vitiated Vata dosha that affect Asthi dhathu (bones). We present a case that was successfully treated on the line of Ayurvedic management of Asthimaja gata vata (~Vata disorder involving bone and bone marrow).

2. Presenting complains

A 34-year-old Indian, married, nonsmoking, nonalcoholic male consulted in Out-Patient Department of National Institute of Ayurveda, Jaipur for a complaint of gradually progressive lower back pain along with stiffening and deformity of the spine and hip since last 17 years. The case was subsequently admitted to the male Panchakarma ward of National Institute of Ayurveda, Jaipur on March-10, 2015 for the administration of Panchakarma procedures. None of the family members had a history of AS. For a long time, the case was on self-medication and taking tablet diclofenac sodium—75 mg when needed for pain relieving.
3. Clinical findings

The patient had several episodes of lower back pain which woke him at night, followed by spinal stiffness in the morning. The patient also had pain and stiffness in the bilateral shoulder, hip, knee, and ankle joints. Swelling in the left knee joint was reported. Neck movements were restricted, and both upper limbs had a movement range up to 45°. Past medical history of the patient was remarkable for AS (Table 1). This patient was an established AS case. On examination, the patient was found to be anxious with disturbed sleep, had a moderate appetite, Vishmagni (undigestible digestive functions), Kruha Kosta (bowel hard to purgate) with normal micturition. The tongue was clear, the voice was clear, and skin roughness was prominent. Patient had Vatapitta prakriti (least capability to carry on physical activities), Madhyam Asharhakri and Jaranshakti (medium food intake and digestive power). Asthivaha Srotodusti (pathology in bone) and Majavaha srotodusti (pathology in bone marrow) were more prominent. The examination also revealed kyphosis, stooping forward position of the neck and flexion deformity of both hip joints. There was a loss of lateral and anterior flexions of lumbar spine and tenderness over the sacroiliac joint. Chest expansion was 2.4 cm, and Schober’s test was positive. X-ray of vertebral column showed a complete fusion of vertebral bodies and other associated areas were also ossified which produced a characteristic bamboo spine appearance. Scoliosis of the dorsal spine with convexity towards right side was seen. X-ray of hip joints revealed bilateral osteoarthritic changes with marginal sclerosis and mildly reduced hip joint space, destruction of SI joint margins with widened SI joint spaces. The patient was treated with Panchakarma for 2–3 months, symptoms relieved.

4. Diagnostic focus and assessment

The patient had complained of continuous joints pain, kyphosis, scoliosis, limping, fatigue, weight loss, and severely disturbed sleep. These symptoms can be compared with symptoms of Asthimajja gata vata as Asthibhedha (stabbing pains in bones), Parva bhedha (pain in joints of fingers) Sandhishoola (pain in joints), Mansa kshaya (depletion of muscular tissue) and Bala kshaya (decreased vitality and strength), Aswapana (sleeplessness) and Satatarka (continuous pain) are the manifestation of Asthimajja gata vata [3]. Adhyayasthi (Fusion of syndromephyses) is the manifestation of Asthipradoshavikara (Diseases of bones) [4]. Vinamata (bending of the body as kyphosis) is the manifestation of Majavivantavata [5]. Amavata and Vatarakta (various diseases of the rheumatic spectrum) was the differential diagnosis in the case. The patient was in Niramavastha (stage of disease without Ama) condition with apparently normal appetite and no Rakta Dusti (vitiation of blood) and Purvaroopa (prodromal symptoms) of Vatarakta was evident, thus patient considered to suffer from Nirama Vata Vyadhi (Vata disease without Ama). As the disease had become deep-seated showing the features of Asthimajja gata vata, thus it was considered as Ayurvedic diagnosis for the case.

Table 1
Timeline of the case.

| Year       | Clinical events and intervention |
|------------|----------------------------------|
| 1998       | Onset of lower backache          |
| 2003       | Diagnosed for ankylosing spondylitis. (HLA-B27 – positive. ESR – 55 mm/h, X-ray pelvis, and spine revealed bilateral sacroiliitis, hematological, biochemical reports were normal) |
| 2004       | Patient underwent for naturopathy treatment for 2 months |
| 2004–2008  | Patient had no major illness, was not under any medical supervision |
| 2009       | The condition of patient worsening. X-ray revealed osteoarthritic changes with marginal sclerosis and mildly reduced hip joint space, destruction of SI joint margins with widened SI joint spaces. He was treated with Panchakarma for 2–3 months, symptoms relieved |
| 2010–2014  | The patient was not under any medical supervision. He self-medicated with diclofenac sodium — 75 mg when needed |
| 10/3/2015  | Patient was admitted in I.P.D. for agonizing pain and severely restricted spinal movements |
| 10/03/2015–12/03/2015 | Castor oil was given at night for mild purgation |
| 12/03/15   | Hematological investigations were done (Hb – 11.6 g%, TLC – 6700th/μl, ESR – 75 mm/h and CRP was positive) |
| 13/03/2015–11/04/2015 | Shalishastika Pinda Svedana and Mustadi Yapana Basti alternated with Anuvasa of Ashvagandha oil along with Ayurvedic oral drugs such as Rasrajras, Triyodashanga Guggulu, Ashvagandha curna, Eranda mool curna and Chausath Prahari Pippali curna. Ayurvedic oral medication is continued till date |
| 08/04/2015 | Hematological parameters were reinvestigated (Hb – 11.3 g%, ESR – 45 mm/h) |
| 13/04/2015 | Patient was discharged from I.P.D. (BASDAI – 4.9, BASFI – 6.1, BASMI – 6.5) |
| 13/04/2015–12/05/2015 | Pratimarshya nasya was given in dose of 2 drops/nostril twice in a day along with Ayurvedic oral drugs |
| 16/05/2015 | Hematological investigations were repeated, and assessment for clinical improvement was done (Hb – 13.0% and ESR 20 mm/h, BASDAI – 3.5, BASFI – 4.8, BASMI – 5.4) |
| September–2015 | Patient condition is stable with slight improvement in pain and spinal mobility (BASDAI = 3.8, BASFI = 4.3, and BASMI = 5.1) |

HEA – Human leukocyte antigen, ESR – Erythrocyte sedimentation rate, SI – Sacroiliac, Hb – Hemoglobin, TLC – Total lymphocyte count, CRP – C-reactive protein, BASDAI – Bath Ankylosing Spondylitis Disease Activity Index, BASFI – Bath Ankylosing Spondylitis Functional Index, BASMI – Bath Ankylosing Spondylitis Metrlogy Index.
Pratimarsha nasya (a type of Ayurvedic nasal therapy) with Anu Taila (oil) in dose of 2 drops/nostril twice a day for next 1 month (Tables 1 and 2).

No concomitant allopathic medication was given during this whole treatment period. For assessment, symptoms of Asthimajja gata vata and core sets of Assessment of Spondylo Arthritis international Society were used [6].

6. Follow up and outcomes

Hematological parameters were reinvestigated on April 08, 2015. At this time, Hb was 11.3 g% and ESR was changed to 45 mm/h. The patient was re-examined, and hematological investigations were repeated on May 16, 2015 that revealed Hb 13.0% and ESR 20 mm/h. The Very good response was noted on various parameters in this case (Table 3). Spinal mobility, stiffness, fatigue, pain, and acute phase reactants (ESR) were reduced after treatment. There was an improvement in functional capacity and global condition of the patient. Moderate improvement in enthesitis was found, and kyphosis was reduced. The patient had improved physical strength, and 2.7 kg body weight was increased during the treatment. The patient had both upper limbs movement range up to 90°/C14 and neck movement up to 75°/C14 in the left side and up to 60°/C14 in the right side.

7. Discussion

The case was treated on the line of management of Asthimajja gata vata. Castor oil which was given for 3 days has Mridu virechana (mild purgation) property, thus employed before Basti procedure for proper evacuation of bowel [7]. Snehana, Svedana, Panchakarma procedures, uses of Basti, uses of milk, and Ghrita processed with Tikta Rasa are indicated for bone pathology [8]. Foods and drugs having sweet and bitter properties are indicated in Majja-prada-doshaja (disease occurring in vitiated bone marrow) diseases. Mustadi Yapana Basti is a combination of drugs, which are having Tikta and Madhura Rasa (bitter and sweet taste) dominance.


8.2. Patient consent

Written permission for publication of this case study had been obtained from the patient.

Source of support

Nil.

Conflicts of interest

None declared.

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