ABSTRACT:

Fibromyalgia syndrome (FMS) is a chronic generalized musculoskeletal condition with a strong female predominance of around 10:1 affecting mostly middle aged or old females around 50 years of age. A multifaceted pathogenesis involving physical, mental and social influences leads to fibromyalgia in majority of the patients causing chronic musculo-skeletal pain, frequently associated with medically unexplained symptoms in other systems. According to Ayurveda, it falls into a subtype of disease known as Vātavyādhi. The present article is an effort to understand the etiopathogenesis of fibromyalgia in Ayurvedic parlance along with its management and it may enlighten the path for future researchers to cope with fibromyalgia and provide holistic health care approach.

Keywords: Fibromyalgia, Vata Dosha, Vatavyadhi, Ayurveda

INTRODUCTION: Pain with its devastating and demoralizing effects remains a challenging problem for both patients and caregivers. Fibromyalgia is one of the most common pain disorders, second only to osteoarthritis as seen in rheumatology practices. Fibromyalgia is defined as a chronic pain syndrome with a complex, multi factorial and not completely known etio-pathogenesis that affects mainly women. It is characterized by generalized musculoskeletal pain and palpation specific tender points, often associated with sleep disorders, fatigue, somatic and cognitive symptoms, as well as psychic disorders. Due to this Fibromyalgia is a debilitating disorder that has negative effect on quality of life and thus impairing the patient's day to day activities. Disturbed sleep has been implicated as a factor in the pathogenesis. Other risk factors include life events that cause psychosocial distress such as marital disharmony, alcoholism in the family, injury assault, low income and self reported child abuse.

Fibromyalgia is a clinical diagnosis based on the characteristic signs and symptoms. According to Ayurvedic view, it can be compared with certain conditions discussed under the umbrella of Vātavyādhi which occurs due to imbalance of Vata Dosha. Modern medications have a limited role in the management of fibromyalgia so patients prefer to use alternative medicine as well as in non-pharmacologic modalities that provide long-term disease management such as Ayurvedic system of medicine along with exercise, behavioral and education. Ayurveda provides a wide variety of time-tested dietary, herbal and lifestyle recommendations to help balance Vata and remove the symptoms caused by its aggravation.

MATERIALS AND METHODS: Available authentic books viz. Samhitas as well as modern medical books used for the specific materials. Different related websites on internet, magazines, articles etc. have also been referred as literary materials and a humble attempt has been made to draw conclusion.
PATHOPHYSIOLOGY OF FIBROMYALGIA IN MODERN VIEW:
Although the aetiology remains unclear, characteristic alterations in the pattern of sleep and changes in neuro-endocrine transmitters such as serotonin, substance P, growth hormone and cortisol suggest that regulation of the autonomic and neuro-endocrine system appears to be the basis of the syndrome. People with fibromyalgia have reduced delta sleep in a pattern distinct from that seen with depression. A reduced threshold of pain perception and tolerance at characteristic sites throughout the body is characteristic of fibromyalgia. Low level of serotonin metabolites in CSF and low levels of somatomedin C - a mediator of growth hormone have been found in most of the patients and related to extended periods of pain following exertion. The high levels of a neurotransmitter-substance P may play a role in spreading muscle pain. The frequent co-morbidity of fibromyalgia with mood disorders suggests a major role for the stress response and for neuro-endocrine abnormalities. The hypothalamic pituitary axis (HPA) is a critical component of the stress-adaptation response. In FMS, stress adaptation response is disturbed leading to stress induce symptoms.

SIGNS AND SYMPTOMS: Fibromyalgia is a syndrome that consists of the following signs and symptoms:
• Chronic widespread pain (in the right and left side of the body, above and below the waist, and in the axial skeleton) of long duration (≥3 months) as the primary, hallmark symptom
• Fatigue
• Sleep disturbance, including non-restorative sleep (feeling unrefreshed after a night's sleep)

These 3 symptoms typically occur in most patients with Fibromyalgia syndrome.

Other key associated symptoms include:
• Tenderness
• Stiffness
• Mood disturbances (e.g., depression and/or anxiety)
• Cognitive difficulties (e.g., trouble concentrating, forgetfulness, and disorganized thinking)
• Multiple other unexplained symptoms and functional impairment of activities of daily living.

DIAGNOSIS OF FIBROMYALGIA SYNDROME: Fibromyalgia is a diagnosis of exclusion and patients must be thoroughly evaluated for the presence of other disorders that could be the cause of symptoms before a diagnosis of fibromyalgia is made. Such as Hypothyroidism, Rheumatoid arthritis, Systemic lupus erythematosus, Polymyalgia rheumatic, Other inflammatory or autoimmune disorders etc. The diagnosis of Fibromyalgia is based on the criteria for the Classification of Fibromyalgia by the American College of Rheumatology, (ACR) 1990. The criterion involves:
• History of widespread pain has been present for at least three months.
• Pain in both sides of the body, above and below the waist. Pain is considered widespread when all of the following are present:
  • Pain in 11 of 18 tender point sites on digital palpation (both side of the body): Occiput (2), Low cervical (2), Trapezius (2), Supraspinatus (2), Second rib (2), Lateral epicondyle (2), Gluteal (2), Greater trochanter (2), Knee (2).

However, not all patients with fibromyalgia meet these criteria, but still these are useful guide to make the diagnosis.
INVESTIGATIONS: Patients of fibromyalgia usually do not have characteristic abnormalities on routine laboratory testing or imaging studies, but it is important to screen for other diseases with similar manifestations and to assist in diagnosis of certain inflammatory diseases that frequently coexist with fibromyalgia. Such tests include the following: Laboratory testing, such as complete blood count, erythrocyte sedimentation rate, rheumatoid factor, antinuclear antibody, thyroid-stimulating hormone, T3, T4, creatinine phosphokinase, a serum muscle enzyme, vitamin D, ESR, CRP, renal function, and liver function tests are necessary to rule out other disorders. X-rays, specialized scans such as nuclear medicine and CT scan, muscle biopsy are normal in cases of fibromyalgia.

AYURVEDIC ASPECT: Fibromyalgia can be described as 'Mansā Dhatugat Vāta or Mamsavritta Vāta (diseases of vitiated Vāta dosha in muscles and tendons). According to Ayurveda, Vāta one among the three Dosha is responsible for all types of macro and micro movements including of stimulation, secretion, circulation etc. and hence can be considered a factor for nervous system stability and activation. Aggravated Vāta Dosha destabilizes the nervous system and can create hypersensitivity leading to pain and tenderness. Accumulation of Ama (toxins) and Srotorodha may also be contributory factors. Additionally, it involves dysfunction in Mamsa Vaha Srotasa and Mamsa Dhatvagni. In addition to it Pittaja and Kaphaja involvement may also produce variations. Thus, all these factors along with vitiated Vāta Dosha may induce multiple and widespread pain in muscles ultimately fatigue, cognitive difficulties and sleep disturbances. Pathogenesis of fibromyalgia may start in two ways. In the first case, is a Vāta predominant individual when favourable factors like poor nutrition, sleep disturbances along with stress and anxiety occurs Vāta gets vitiated and affects Mamsa and other related structures producing pain, fatigue, mood disturbance. In the other pathogenesis, formation of Ama or due to vitiation of Pitta, Avarana of Vāta takes place causing tenderness, stiffness, along with widespread musculo skeletal pain. In this condition patients may also present with additional symptoms of Ama or Pitta aggravation. Hence while planning a line of treatment for fibromyalgia from Ayurveda point of view, these mentioned factors are to be considered and accordingly line of treatment has to be planned.

AYURVEDIC APPROACH OF FIBROMYALGIA TREATMENT: The aggravation of Vāta Dosha or accumulation of Ama (toxins) are the primary causes and should be treated mainly. Associated weak digestion, constipation, and effects of chronic stress should also be tackled. So the treatment of fibromyalgia, which is primarily a Vātavyadhi disease, focuses on both Vāta Shastrana (re-balance) and Samshodhana (purification) along with management of Ama.

PANCHAKARMA THERAPY: This is the main line of treatment in this disorder and ideally is the initial intervention in fibromyalgia if the patient has no contraindications. Pre-purification measures namely 'Snehan' and 'Swedan' are very effective to balance 'Vata' and helps to dissolve toxins. Medicated oil is applied to the entire body followed by fomentation therapy with herbal decoction. This Snehana and Swedana therapy provides a deeply soothing and balancing effect to Vāta. The friction and movements massage creates heat which enhances circulation
and helps cleanse the Ama or other impurities that could be aggravating and hypersensitizing nerve tissues. For these purpose—Bala Taila / Ksheerbala Taila / Mahanarayana Taila / Kottamchukadi Taila / Dhanvantara Taila etc can be used. Patients with predominance of Kapha can undergo Vamana by using Madanphala Yoga. Similarly with Pitta aggravation, Virechana can be planned with Trivritta Avaleha, Avipattikara Churna, Eranda oil or Triphala Churna depending on Koshta. In stress prone individuals who have sleep and mood disturbances, Sirovirechana or Nasya can be planned. Patients with constipation, debility and other Vata predominant features may undergo Matra Basti or a schedule of Kala or Yoga Basti.

**AYURVEDIC PALLIATIVE MEDICINES:** If there is pain or stiffness or tenderness—Dashamula Kwath / Dashamularishtam 30ml twice /day or Rasnadi Guggulu 2pill TDS or Yograj Guggulu 2 pill TDS or Simhanad Guggulu 2 pill TDS can be prescribed.

If pain is associated with fatigue—Rasayana Churna 3gms or Chayvanaprasha, Bala Churna, Ashvagandha Churna or Gokshura Churna can be given with milk or water twice or thrice daily

If there is mood swing / sleep disturbances then Mansyadi Kwath 10gms twice daily / with Brahmi Churna + Sankhupusphi Churna + Jatamansi Churna can be prescribed along with other medicines as per requirement.

**DIET AND NUTRITION:**

The diet normally advised for patients of fibromyalgia is a modified Vata-pacifying diet (*Pathyam*). It should include:

- Vegetable juices and soups prepared from Guard, bottle guard, carrot, tomato, pumpkin, spinach, beet root.

- Coconut water

- Kichadi (recipe made by cooking red / bran rice and mung dal.)

- Warm milk with spices like cinnamon, cardamom, ginger and clove

**Fibromyalgia patients should avoid the following food articles (Apathyam) and behaviors:**

- Hot (spicy) and fried foods; processed, excessive salt or sugar; very bitter and astringent foods, cauliflower, brinjal, potatoes.

- Excessive tea, coffee, alcohol, curd, chocolate, cocoa, milk.

- Sleeping during the day and staying up late at night

- Mental tensions like worry, anxiety, fear, stress and grief.

**PRACTICE OF YOGA**

It is documented that fibromyalgia is often worsened by excessive stress, anxiety and mental fatigue. There are hormonal changes and other biochemical responses to stress that can aggravate the nervous system, and the immune response and affects quality of sleep pattern which in turn aggravates the fibromyalgia syndrome. Various stretching exercises are known to have a positive effect on fibromyalgia. Regular practicing of different yogic postures are helpful. Shavasana (Corpse posture) brings about a relaxed state of mind, Pranayama (Yogic breathing practices) create a state of restful alertness in mind and body.

**CONCLUSION:** Fibromyalgia is a common rheumatologic syndrome characterized by widespread chronic musculoskeletal pain, fatigue, sleep disturbance as a hallmark of the disease and other symptoms as a result of dysregulation of neurophysiologic function. Many theories of etiology are under investigation. Recent scientific studies suggest that specific ar-
areas of the brain and specific neurochemicals (i.e. substance P, endorphins, nerve growth factor) may be involved in the pathophysiology of fibromyalgia and research in these areas are ongoing. Many patients diagnosed with fibromyalgia can be helped by improved nutrition, appropriate life style modification, proper exercise, and Ayurvedic system of medicine. More Ayurvedic scholars should turn their attention to this disabling syndrome, so that the future prognosis will improve for those affected by fibromyalgia.

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