



### Case Report

## Fibromyalgia managed with Ayurveda intervention: A Case report

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Received: 10-09-2025

Accepted: 23-04-2026

Published: 30-06-2026

### Abstract

The rheumatologic condition known as fibromyalgia syndrome (FMS) is characterized by a dysregulation of neurophysiological processes that results in increased pain sensitivity, sleep disturbance, exhaustion, and stiffness and tenderness of the joints, muscles, and tendons. In Ayurveda there is no mention of this condition but it can be correlated with *Mamsagata Vata*. It can be treated with consideration of pacifying *Vata dosha* and balancing *Mamsa Dhatu Dushiti*. It is mainly caused by *Vata* with the participation of *Manasika bhavas* (mental elements such as stress, worry, and depression). In this case study a 48-year-old housewife suffering from Fibromyalgia for 8 months was treated with *Nirgundi patra swarasa*, *Eranda taila* and *Brahmi Vati* for 30 days. Assessment was done using Visual Analogue Scale (VAS) for pain, widespread pain and symptom severity (WPI, SSS) scale and PSQI scale for improvement in sleep disturbance. Improvement was observed in all assessment parameters. *Shoolhar*, *Medhya*, and *Rasayana* properties of these formulations help in improving the symptoms. Hence it can be concluded that Fibromyalgia symptoms can be reduced by using Ayurveda measures. This is a single case study so to prove the efficacy the study can be conducted on a large number of cases.

**Keywords:** Fibromyalgia, *Nirgundi patra swarasa*, Symptom Severity Scale (SSS), Widespread Pain Index (WPI)

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online

Website:  
<https://ijam.co.in>



DOI: <https://doi.org/10.47552/ijam.v17i2.6554>

## Introduction

The rheumatologic condition known as fibromyalgia syndrome (FMS) is characterized by a dysregulation of neurophysiological processes that results in increased pain sensitivity, sleep disturbance, exhaustion, and stiffness and tenderness of the joints, muscles, and tendons (1).

During the period of 1990–2005, prevalence of Fibromyalgia syndrome (FMS) was found in the populations ranging from 0.7% to 4.4%, the incidence is more in women than in men (2). Although it can happen in any age group, the onset usually happens between the ages of 30 and 55 (3). The 2010 and 2016 revisions to the diagnostic criteria placed more emphasis on

patient-reported Widespread Pain Index (WPI) and Symptom Severity Scale (SSS) than on the number of tender points (4).

Although its exact etiology is unknown, it is thought to be multifaceted, with potential triggers including infections, psychosocial stress, trauma, genetic susceptibility, neuroendocrine and autonomic dysregulation, and central sensitization that increased pain signaling and decreased pain inhibition. Many individuals still have significant symptoms even after conventional care, which includes pharmacologic medications (such as some antidepressants and anticonvulsants) along with cognitive therapies and exercise (5).

As per Ayurveda, there is no direct correlation of Fibromyalgia but it can be understood on the basis of *Vatavyadhi*, particularly *Mamsagata Vata*. The symptoms like widespread musculoskeletal pain (*sarvanga shoola*), fatigue (*klama*), stiffness (*stambha*), sleep disturbances (*nidra vikar*), and cognitive complaints (*smriti bhramsha*) indicate vitiation of *Vata dosha*, often associated with *Ama* (metabolic toxins) and *dhatu kshaya* (tissue depletion). Hence it has to be treated with *Vata*-pacifying drugs and drugs having anti-inflammatory, analgesics and anti-oxidants properties. *Nirgundi* (*Vitex negundo* Linn.) acts as analgesic, anti-inflammatory, and nervine. In recent research it has been proved to have antioxidant and anti-inflammatory qualities.

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## Case Report

A 48-year-old housewife arrived complaining of eight months of widespread musculoskeletal pain, along with accompanying exhaustion, trouble sleeping, headache and excessive anxiety.

History of present illness-Patient was alright 8 months ago. She suddenly develops pain in both lower extremities. Pain progresses to upper extremities and back. Patient develop anxiety and restlessness. For which she had taken analgesic medicines like NSAID intermittently but symptoms relieved temporarily. So, she came to take Ayurveda treatment. No significant past history and family history. In personal history patient is having no addiction but lifestyle was sedentary including *divaswapa*. *Ashtavidha pariksha* was within normal limits.

Examination: On examination there was nonspecific diffuse musculoskeletal tenderness noted. No any joint or bony abnormality found.

Investigations- Laboratory Investigations were done to exclude inflammatory and metabolic rheumatologic disorders. The laboratory investigations included Complete Blood Count (CBC), Erythrocyte Sedimentation Rate (ESR), C-reactive protein (CRP), Rheumatic Factor (RF), Anti-cyclic citrullinated peptide (anti-CCP) antibodies, Serum uric acid, Liver function tests, and Kidney function tests were within normal limits. Inflammatory rheumatological conditions like Rheumatoid arthritis, Osteoarthritis were excluded due to the absence of elevated inflammatory markers (ESR, CRP) and negative serological markers (RF and anti-CCP), which are commonly used in classification criteria (e.g., ACR/EULAR criteria). Normal serum uric acid levels excludes Gout along with lack of clinical features such as acute monoarticular inflammation. Normal leukocytes count or systemic inflammatory response on Complete Blood Count exclude the infectious or systemic inflammatory conditions. Normal liver and Kidney function tests helped to exclude metabolic or systemic causes that could contribute to musculoskeletal symptoms. Therefore, the Diagnosis was done based on clinical evaluation by excluding inflammatory, infectious, and metabolic conditions, rather than fulfilling specific classification criteria for an alternative rheumatologic disorder.

### Diagnostic Criteria for Fibromyalgia (2016 ACR Revision):

The American College of Rheumatology (ACR) 2016 revised criteria were used to diagnose fibromyalgia. Instead of using tender point assessment, these criteria rely on a combination of symptom distribution and severity.

#### 1. Widespread Pain Index (WPI):

The distribution of pain is measured using the WPI. It has been calculated by asking the patient if they have had pain in any of 19 predetermined body parts during the previous week (e.g., shoulders, arms, hips, legs, jaw, chest, abdomen, back). A total score of 0 to 19 is obtained by assigning 1 point to each painful spot (6).

#### 2. The Symptom Severity Scale (SSS):

SSS evaluated the severity of symptoms and related physical characteristics. It consists of: Fatigue, waking up without feeling refreshed, and cognitive problems (e.g., memory or concentration difficulties)

These are all rated from 0 (no issue) to 3 (severe).

A total SSS score ranging from 0 to 12 is obtained by adding a score (0–3) based on the severity of other somatic symptoms (e.g., headache, irritable bowel symptoms, depression) (7).

#### 3. Diagnostic Threshold (Pain + Symptom Criteria):

Diagnosis requires:

Widespread Pain Index (WPI)  $\geq 7$  and SSS  $\geq 5$  OR

Widespread Pain Index (WPI) 4–6 and SSS  $\geq 9$

#### 4. Generalized Pain Criterion:

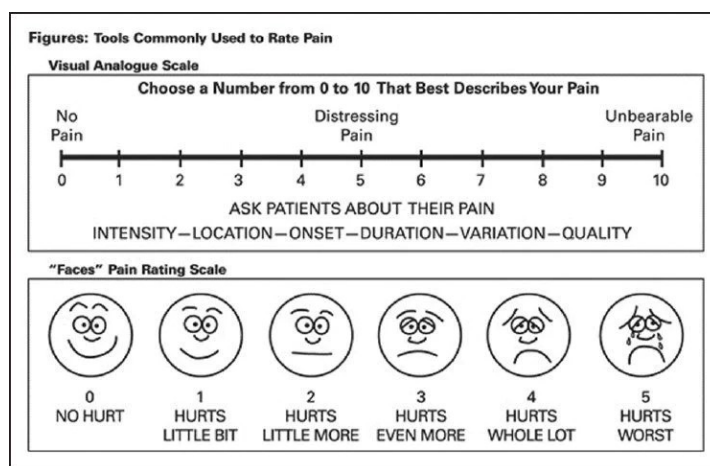
Pain must be present in at least 4 of 5 regions (left upper, right upper, left lower, right lower, and axial region), excluding jaw, chest, and abdominal pain from this regional count. (Generalized pain in  $\geq 4$  of 5 regions for  $\geq 3$  months)

#### 5. Duration of Symptoms:

Symptoms must be present at a similar level for at least 3 months.

**Visual Analogue Scale-** A following Visual Analogue Scale is used to determine the severity of pain shown in figure 1. (8).

Figure 1: Visual Analogue Pain Scale



**PSQI Scale** – Fibromyalgia, a chronic pain syndrome characterized by muscle tenderness frequently associated with fatigue, sleep disturbance, and depressed mood. Patients characterize sleep disruptions as a subjective perception of nonrestorative sleep. FM patients report emotional and cognitive abnormalities, insomnia, early morning awakenings, and waking up exhausted or unrefreshed. It has been demonstrated that there is direct correlation of pain intensity and poor sleep quality. Hence the sleep quality was assessed to measure the outcome of treatment in this patient (9-11).

Table 1: Treatment Plan and Timeline

| SN | Medicine                      | Dose                          | Anupana        | Duration |
|----|-------------------------------|-------------------------------|----------------|----------|
| 1  | <i>Nirgundi patra swarasa</i> | 20 ml twice a day before meal | Lukewarm water | 30 days  |
| 2  | <i>Eranda taila</i>           | 10 ml at bed time             | Lukewarm water |          |
| 3  | <i>Brahmi Vati</i>            | 500 mg at bedtime             | Lukewarm water |          |

**Table 2: Outcome measures and follow-up**

| Assessment parameters | Before treatment (Day 0) | During treatment (Day 15) | After treatment (day 30) | Follow up 1 month after completion of treatment |
|-----------------------|--------------------------|---------------------------|--------------------------|---|
| VAS pain              | 8                        | 5                         | 2                        | 2   |
| WPI                   | 9                        | 6                         | 3                        | 2   |
| SSS                   | 8                        | 6                         | 2                        | 2   |

Safety monitoring: The patient received *Brahmi Vati*, *Eranda Taila*, and *Nirgundi Patra Swarasa* as indicated in Table 1. Every time, freshly prepared *Nirgundi Patra Swarasa* was given. The market preparations for *Eranda Taila* (from Baidyanatha Company Ltd.) and *Brahmi Vati* (from Himalaya Company Ltd.) used from reliable sources. The patient's vital signs, bowel movements, and adverse events were checked once a week. After 30 days, laboratory monitoring (CBC, LFT, and RFT) was conducted once again which was within normal limits.

**Table 3: Outcome measures and follow-up of PSQI Scale**

| PSQI Scale                                    | Before treatment (Day 0) | During treatment (Day 15) | After treatment (day 30) | Follow up 1 month after completion of treatment |
|---|--------------------------|---------------------------|--------------------------|---|
| Time in minutes needed to fall asleep         | >60-90 min               | >30min-60min              | 30 min.                  | 10-20min  |
| The Total duration in hours of sleep at night | 4-6hrs.                  | 7-8 Hrs                   | >8 hrs                   | >8 hrs  |
| Arousals during the night: two to ten times   | 4-5 times                | 2-3 times                 | 1 time                   | 0   |
| Cause for waking up                           | Pain                     | Pain                      | No Pain                  | No pain   |
| Daytime Sleep (min)                           | 1 hr                     | 30 min                    | 10 min.                  | 10 min.   |
| Feeling of relaxation after wake up           | No                       | little                    | Yes                      | Yes   |

Outcome was measured by assessment of VAS pain scale, WPI, SSS and PSQI scale from baseline to day 30 and after follow up as shown in table 2 and 3.

## Discussion

The symptoms of fibromyalgia, a chronic pain syndrome, include exhaustion, cognitive impairment, sleep difficulties, and extensive musculoskeletal discomfort. According to Ayurveda, it is in accordance with *Mamsa*, *Meda*, and *Majja dhatu dushti* and is mainly caused by *Vata* with the participation of *Manasika bhavas* (mental elements such as stress, worry, and depression).

The uniqueness of this case lies in the successful management of fibromyalgia through Ayurvedic Shamana Chikitsa administered in a home-based setting. The patient experienced significant

symptomatic relief without any adverse effects, highlighting the safety, feasibility, and effectiveness of this non-invasive approach.

The patient reported improvement in pain and quality of sleep. No adverse effects of treatment were noted during follow-up or in laboratory workout. The present case demonstrated that giving oral *Nirgundi Patra Swarasa*, *Eranda Taila* and *Brahmi Vati* to a fibromyalgia patient showed clinical relief.

### Probable mode of action of *Nirgundi (Vitex negundo Linn.) patra swarasa*

*Nirgundi (Vitex negundo Linn.)* possesses *Tikta* (bitter), *Katu* (pungent) *Rasa* and *Ushna* (hot) having *Shothahara* (anti-inflammatory), *Vedanasthapana* (analgesic) and *Vatanulomana* properties. *Ushna* and *Vedanasthapana* properties reduce pain. *Agneedepana* and *Amapachana* properties help in digestion of *Ama* and improves circulation thereby improves *Dhatuposhana*. *Shothahara* property reduces inflammation. Through pain reduction and balancing *Vatadosha*, it improves sleep quality (12). It contains phytoconstituents like Flavonoids, iridoid glycosides, and other components with anti-inflammatory, analgesic, antioxidants, neuroprotective and adaptogenic properties. These compounds may control inflammatory mediators and lessen peripheral nociception. *V. negundo* has been shown to have analgesic and anti-inflammatory properties in both experimental and review studies (13).

### Probable mode of action of *Eranda taila (Castor oil)*

*Snigdha* (Unctuous), *Guru* (heavy), and *Ushna* (hot) properties of *Eranda taila* (Castor oil) pacify the *Vata* and *Kaphadosha*. *Deepana*, *Pachana* properties of it enhances *Agni* (digestive fire) and clears *Ama* (metabolic toxins) responsible for muscle stiffness and pain. *Balya* (Nourishing) property helps in nourishment of all *Dhatu* (tissues), thereby strengthening muscles. *Vedanasthapana* and *Shothahara* properties help in reducing pain, inflammation and swelling. *Vatanulomaka* and *Rechana* (Mild Purgative) property clears all obstructed channels thereby reducing stiffness and heaviness. Fibromyalgia is considered as *Vatavyadhi* in Ayurveda, often associated with *Ama* (toxins) leading to stiffness, pain, fatigue, and disturbed sleep. *Eranda Taila* acts by pacifying aggravated *Vata* thus helps in improving sleep disturbances (14). According to recent studies, ricinoleic acid and other bioactive ingredients of *Eranda taila* have anti-inflammatory and analgesic effects (15).

### Probable mode of action of *Brahmi Vati*

The *Brahmi vati* include *Brahmi (Bacopa monnieri L.)*, *Shankhapushpi (Convolvulus pluricaulis Chois)*, *Gojihva (Onosma bracteatum Wall.)*, *Vacha (Acorus calamus Linn.)*, *Swarnamakshika (Copper pyrite and Iron pyrite)*, *Rasa sindoor (Sulphide of mercury)*, *Krishna Marich (Piper nigrum Linn.)*, *Jatamansi (Nardostachys jatamansi Dc.)*. It possesses *Shothahara* (anti-inflammatory), *Medhya* (nootropic), *Rasayana* (rejuvenative), *Nidrajanana* (sleep promoting), and *Hrudya* (cardiotropic) properties (16).

Studies have demonstrated improvements in sleep duration, anxiety, sleep onset delay, systolic and diastolic blood pressure, and occasional awakenings during sleep (17). *Brahmi vati* may work through its different constituents that was proved in animal study. *Brahmi* has antioxidant and stress-relieving properties; it lowers lipid peroxidation in prefrontal cortex, hippocampus, and striatum; it helps restore abnormalities in neurotransmission and neuronal function; and it has antidepressant properties (18). Antidepressant, antistress, neuroregenerative, anti-amnesic,

antioxidant, and immunomodulatory properties are displayed by *Shankhpushpi* (*Convolvulus pluricaulis* Choisy) (19). *Jatamamsi* (*Nardostachys jatamansi* DC.) raises GABA and monoamine levels in the brain and has anxiolytic properties (20). In patients with primary insomnia, *Jatamamsi* enhanced the onset of sleep and lengthened the duration of sleep (21). By blocking MAO-A and MAO-B and their interaction with GABAergic receptors, *Jatamamsi* exhibits antidepressant effects (22). All these properties thus help in reducing PSQI scale by improving sleep quality.

The well-known Ayurveda herb *Bacopa monnieri* L. has a potent antidepressant and notable antinociceptive effect through adenosinergic, opioidergic, and adrenergic pathways, that is similar to that of morphine. Additionally, BM has been shown to be beneficial for neuropathic pain. It also has a potent anti-inflammatory action that is mediated through the inhibition of COX-2. In addition to enhancing morphine analgesia, BM prevents the development and manifestation of morphine tolerance as well as hyperalgesia brought on by opioid withdrawal. According to reports, BM has a potent protective effect against the harmful effects of opiates on important organs like the heart, brain, and kidneys. BM has been shown in numerous clinical trials including a range of age groups to be a safe and well-tolerated herbal treatment (23).

The fibromyalgia is characterized by persistent, widespread pain that is accompanied by a variety of physical symptoms, including fatigue, stiffness, balance issues, hypersensitivity to both physical and psychological environmental stimuli, depression and anxiety. A research study conducted to determine the results of a stress-reduction, cognitive behavioral treatment [SR-CBT] program in fibromyalgia showed that it is a useful adjunct in the treatment of patients with fibromyalgia (24).

Jain HK. Conducted a case series on 5 patients of fibromyalgia (*Mamsagata Vata*) for 8 weeks using Bombay Hemp Company peace capsules, having *Vijaya* (*Cannabis sativa* L.) as one of the main ingredients. They found significant relief in pain and stiffness of muscles. They reported that properties of *Vijaya* helps to reduce pain and inflammation in patients by reducing Vata accumulation in muscles and thus helps to reduce the pain in muscles. *Vijaya* has cannabidiol (CBD), tetrahydrocannabinol (THC), as the main phytoconstituents in it. CBD and THC goes and bind to endocannabinoid receptors present in the body and release anandamide and 2 arachidonoyl glycerol which are neurotransmitters and help to reduce pain (25).

Meena and Bhatted treated a case of fibromyalgia (*Mamsagata vata* as per Ayurveda) with *Panchakarma* procedures such as *Abhyanga* (oleation) with *Dhanvantara taila*, *Swedana* (fomentation) with *Dashamoola kwatha*, and *Erandmuladi basti* (therapeutic enema) along with *Shirodhara* (oil pulling therapy) with *Ksheerabala taila* followed by internal medicines like *Simhanad Guggul*, *Rasnasaptaka kwath*, *Musta churna*, *Guduchi churna* and *Rasayan Ashwagandha*. Assessment criteria was based on the scoring of FM Impact Questionnaire. They observed encouraging results in physical signs of FM. They stated that *Ashwagandha* is a potent *Rasayana* (~rejuvenative drug) due to its multiple pharmacological actions such as anti-stress, neuroprotective, antitumor, anti-arthritis, analgesic, and anti-inflammatory. It is useful for different types of diseases such as Parkinsonism, dementia, memory loss, and stress-induced diseases. Hence it is useful in FM as a antistress agent (26).

Verma, et al. conducted case study on Yoga for fibromyalgia in which patient was advised special *yoga* postures to improve the flexibility and movement of joints, 1 hour per day for 6 days/week

in the morning and evening under the supervision of trained yoga therapist for 9 months. The result of case study demonstrated reduction in muscle fatigue, pain, and improvement in quality of life and sleep. The patient showed improvement in nocturnal sleep, decrease in sleep onset, and reduced day time sleep. They advocated that *Yoga* (including *paranayam*, meditation) being inexpensive and easy to incorporate in day to day life, is one of the most promising therapies for primary care of FMS (27).

A key limitation of this case is that *Shodhana Chikitsa* (purificatory therapy) was not implemented due to the patient's unwillingness, which may have influenced the overall therapeutic outcome and limits broader generalization of the results.

## Conclusion

The properties of *Nirgundi patra swarasa*, *Eranda taila* and *Brahmi Vati* help in pacifying aggravated *Dosha* and *Dushya* involved in pathogenesis of Fibromyalgia that help in relieving symptoms. From this case it can be stated that symptoms of Fibromyalgia can be managed using Ayurved drugs having Vata pacifying, *Shothahar*, *Shoolhar*, *Medhya* and *Rasayana* properties.

## Takeaway Message

This case report highlights that fibromyalgia can be effectively managed through Ayurvedic *Shamana Chikitsa* (palliative treatment), offering a promising, safe, and non-invasive therapeutic approach without observed adverse effects.

**Recommendation and further Scope:** This is a single case study so to prove the efficacy the study can be conducted on a large number of cases.

**Declaration of Patient consent:** The informed consent of the patient was taken for treatment. The consent was also taken to publish his clinical information.

**Conflict of Interest:** No conflict of interest.

**Informed consent:** A written informed consent of patient was taken prior commencement of treatment and for publication in the esteemed journal.

**Acknowledgement:** I am thankful to my institute for providing the conducive environment and support in publishing my work.

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