

FIBROMYALGIA

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This article may be cited as: Rahman I. FIBROMYALGIA.
J Saidu Med Coll Swat 2022;12(1):1-2.DOI:https://doi.org/10.52206/jsmc.2022.12.1.698

Fibromyalgia is widespread chronic pain disorder, which can affect individuals of different age, sex and socio cultural background. Its estimated figure in western population is 2-5%. Fibromyalgia is a non-inflammatory, non-autoimmune chronic disorder of central afferent processing, which leads to a diffuse pain syndrome. The symptoms include widespread pain, fatigue, stiffness and sleep disturbance, cognitive problems and mood disorders (anxiety, depression or both)¹.

The etiology of Fibromyalgia (FM) is unknown; however several factors may contribute to development as well as severity of symptoms of FM. Genetic polymorphisms have reported in serotonin transporter and receptors, as well as in dopamine, beta2 adrenergic and glutamate receptor genes.²

Middle aged women and young are more affected. Sleep abnormalities, autonomic dysregulation, and psychological variables like perfectionist personality, negative beliefs, low self-efficacy, depression and anxiety are the contributory factors.³

Physical examination and pathological investigations show no evidence of articular, osseous or soft tissue inflammation or degeneration. Tenderness at points both above and below the waist may be observed on physical examination. The previously followed criteria, depending on presence of tender points, are no more followed. In 2010, a new diagnostic criterion was adopted by American College of Rheumatology (ACR)⁴. It has three points:-

- i. Widespread pain index (WPI) ≥ 7 & a symptom severity (SS) score ≥ 5 or widespread pain index 3-6 & (SS) score ≥ 9 .
- ii. Patients may present with symptoms for at least 3 months.
- iii. No other disorder to explain symptoms.

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Received: February 21th, 2022 Accepted: March 09th, 2022

A lot of diseases are to be excluded before making the diagnosis of FM. These are Systemic lupus erythematosus, Systemic sclerosis, Polymyositis, Ancylosing spondylitis, Osteomalacia, Rheumatoid arthritis, Polymyalgia rheumatica, hypothyroidism, chronic hepatitis, HIV, hemochromatosis, celiac disease, myasthenia gravis, hyperthyroidism, myopathies, Sjogren's, adrenal insufficiency, lymphoma and chronic fatigue syndrome.⁵

Although the exact pathophysiology of FM is unknown, most of the researchers believe that the pathophysiology of FM is due to the sensitization in the CNS, which manifest in the form of amplified pain perception. The specific abnormalities that have been observed in the afferent pain procession areas of the CNS in FM patients are: hyper excitability in dorsal horn nuclei due to abnormal windup; increased levels of substance P, nerve growth factor, increase levels of glutamate and aspartate in the CSF of patients presenting with FM;⁶ central pain perception is believed to be expanded, causing central sensitization. MRI reveals expanded fields in the insula, anterior cingulate cortex and somatosensory area.⁷

The abnormalities in the descending analgesia system are also observed i.e decreasing levels of pain inhibitory neurotransmitters including nor epinephrine, serotonin, dopamine and decrease normal activity of dopamine releasing neurons in limbic system.¹

The management of FM is very challenging. It has many components i.e patient education, physical exercises, analgesia, treatment of associated condition like anxiety, depression and mood disorders. Counseling about the disease and CBT are also helpful.

Medication approved for the treatment of FM are: Serotonin-norepinephrine reuptake inhibitors (SNRIs); Duloxetine, venlafaxine, Milnacipran. Anticonvulsants; Pregabalin. Tri cyclic antidepressants: Amitriptyline, imipramine. Analgesia; Tramadol. Paracetamol and NSAIDs are not affective for analgesia.^{8,9}

The diagnosis of FM is quite challenging in the well developed world with good evaluation and referral system. In our country with poor medical education and no referral system FM patients are the most un-diagnosed and under treated patients. It is high time to highlight the importance of diagnosis of FM to the General Practitioners and other specialties doctors for proper management of the patients.

The disease impact of FM is not less than any other chronic inflammatory disease like Rheumatoid Arthritis. On an average the FM patient visits doctor 3-4 times more as compared to the general population (17 versus 4 visits /year). The frequent visits of patients with FM, is one of the factors of increasing burden on health system as well as having socio-economic impact on patients.

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