



Current Controversies and Therapeutic Update in Fibromyalgia



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Fibromyalgia is a common chronic condition resulting in profound fatigue and musculoskeletal (MSK) pain. Despite the high prevalence of fibromyalgia, this entity is poorly understood and difficult to manage. In this article, we address some of the misconceptions regarding fibromyalgia and highlight some new therapeutic agents in the management of this disease.



Is fibromyalgia a "rheumatic" condition?

This question is often raised as the symptoms of fibromyalgia are subjective, there is an absence of synovitis on examination and laboratory investigations are normal. Additionally, there is a significant overlap between fibromyalgia and affective disorders. Although it may be hard to convince the ardent sceptic regarding the entity of fibromyalgia, the diagnosis is clearly helpful from the patient's perspective as well as the physician's as there are fewer inappropriate referrals, diagnostic tests and drug prescriptions after the diagnosis of fibromyalgia is made.^{1,2}



How helpful is the presence of tender points in diagnosing fibromyalgia?

The American College of Rheumatology (ACR) classifies fibromyalgia as widespread MSK along with pain on palpation in at least 11 of 18 predefined tender points.³ Pain is defined to be widespread when all of the following are present:

- pain in the left side of the body,
- pain in the right side of the body,
- pain above the waist and
- pain below the waist.

In addition, axial skeletal pain (cervical spine, anterior chest, thoracic spine, or low back) must be present. For the 1990 ACR criteria to be satisfied, both criteria must be met. This definition has an 80% sensitivity and specificity in differentiating fibromyalgia from controls and have been validated in population studies. In current practice patients are often diagnosed with fibromyalgia in the absence of the required number of tender points. Thus, at present, there is controversy regarding the clinical utility of tender points, however, no other validated criteria presently exist for fibromyalgia.

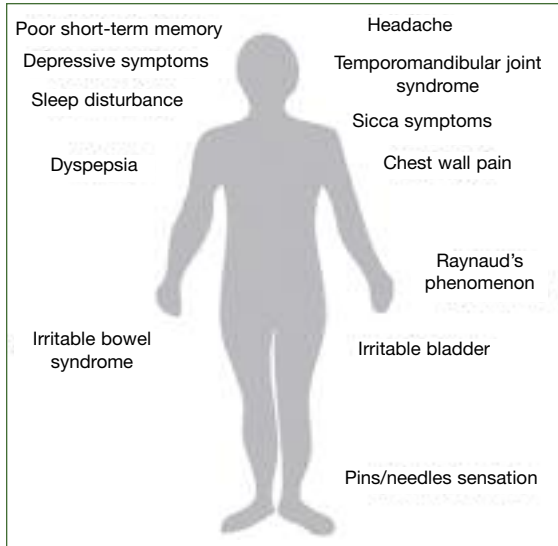


Figure 1. Symptoms that are frequently reported in patients with fibromyalgia.

What other non-MSK related symptoms are associated with fibromyalgia?

Generalized fatigue and non-restorative sleep pattern are among the most frequent non-MSK symptoms in fibromyalgia.⁴ There are a myriad of other symptoms that are frequently reported in patients with fibromyalgia (Figure 1). These features share two common characteristics: they occur predominantly in females and there is an absence of structural tissue pathology for most symptoms.

Is there a role for non-pharmacological treatment in fibromyalgia?

Patient education and reassurance is likely the most helpful intervention that a physician can offer. Patients with fibromyalgia respond best to multimodal treatment regimes that incorporate

patient education, psychotherapy, cognitive behavioural therapy, physical activity, as well as pharmacotherapy. Even though it takes considerable time to get these points across, patient education is strongly supported in the literature.⁵ Patients who understand the benign nature of their disease generally do much better and are more likely to adhere to behavioural therapy and lifestyle changes. The importance of cognitive behavioural therapy and CV exercise should be emphasized during each visit.⁶ CV exercise should be introduced as a graded aerobic exercise program of at least 30 minutes three times a week.

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What therapeutic choices, particularly new medications, are available for the treatment of fibromyalgia?

The central symptom that needs to be addressed is MSK pain. The other key domains that warrant consideration in the management of fibromyalgia include:

- fatigue,
- sleep disturbance and
- global quality of life.

Traditionally, low dose tricyclic antidepressants or cyclobenzaprine has been the pharmacotherapy of choice for the initial treatment of fibromyalgia.^{7,8} However, other antidepressants have also been shown to be efficacious in treating fibromyalgia including selective serotonin reuptake inhibitors and dual serotonin and norepinephrine reuptake inhibitors.⁹

Three new therapeutic alternatives are now available for the management of fibromyalgia:

- Duloxetine is a dual reuptake inhibitor which is now approved by the FDA in the management of fibromyalgia. The typical dose is between 60 mg to 120 mg q.d. Duloxetine significantly reduces the pain and improves overall well-being at three and six months^{10,11}
- Pregabalin is an amino acid that is structurally related to the neurotransmitter γ -aminobutyric acid (GABA). Pregabalin bind to the α_2 - Δ -1 subunit of the voltage-gated calcium channels of presynaptic neurons and modifies channel functional properties. Pregabalin is effective in the management of fibromyalgia and the durability of this agent has been demonstrated for at least six months.^{12,13} The recommended dosage is 300 mg to 450 mg q.d. in two divided doses. Pregabalin has been shown to improve pain, sleep, fatigue and global well-being in patients with fibromyalgia
- Gabapentin is structurally related to the neurotransmitter GABA, but like pregabalin, it does not modify GABA_A or GABA_B radioligand binding. Gabapentin at doses of 1,200 mg to 2,400 mg q.d. is superior to placebo as noted in a 12 week randomized controlled trial with respect to pain¹⁴ 

Take-home message

Approach to the management of the fibromyalgia patient—initial visit:

Step 1

- Confirm diagnosis
- Explain diagnosis
- Reassure patient

Step 2

- Evaluate and treat comorbid illness
- Begin trial of low dose tricyclic antidepressant or cyclobenzaprine
- Begin CV fitness exercise program

Follow-up visits (if no response from steps 1 and 2)

- Consider trial of pregabalin or serotonin-norepinephrine reuptake inhibitor or selective serotonin reuptake inhibitor
- Consider trial of gabapentin or tramadol
- Consider speciality referral

For references, please contact diagnosis@sta.ca



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