

Fibromyalgia

Fibromyalgia (FM) is a poorly-understood chronic pain syndrome characterized by widespread musculoskeletal pain, nonrestorative sleep, fatigue, psychological distress, and specific regions of localized tenderness, all in the absence of otherwise apparent organic disease.^{5,12,21} FM is considered part of a huge continuum of pain and somatic syndromes.¹³

Diagnosis

The American College of Rheumatology established diagnostic criteria for FM in 1990.⁵ Physical examination had to show that at least 11 of 18 designated tender points are painful when a specific pressure is applied (figure 7.1). These tender points may also result from distress, anxiety and depression. Fibromyalgia patients, however, have also been found to be more tender using more sophisticated and objective measures.¹³

Prevalence

Literature data show that FM occurs more commonly

in women (3.4%) than in men (0.5%).²⁰ The value of these data, however, is questionable. Clauw broke down the ACR criteria into the 2 elements: “*chronic widespread pain*” and “*11 of 18 tender points*”.¹³ Women only met the “11 of 18 tender points” criterion more frequently than men (11x) whereas chronic widespread pain hardly occurred more frequently. First-degree relatives of FM patients have a 8-fold increased risk of FM.¹⁸

Cause

It is clear that FM patients experience pain differently than the general population, and in the absence of disease.¹² The cause of FM is unknown but it is suggested that FM may result from abnormal central pain processing rather than a dysfunction in the peripheral tissues where the pain is perceived (see figure 7.2). Susceptibility for pain syndromes has been suggested to depend on about 20 genes as well as on environmental “stressors”.¹³ Suggested stressors are

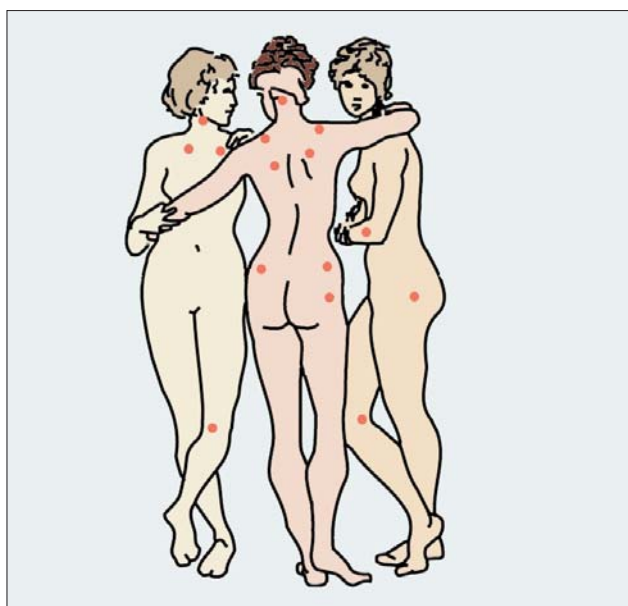


Figure 7.1 The 18 tender points, 11 of which must be painful when pressure is applied for a diagnosis of fibromyalgia to be made. These tender points may also result from distress, anxiety and depression. Fibromyalgia patients, however, have also been found to be more tender using more sophisticated and objective measures.¹³

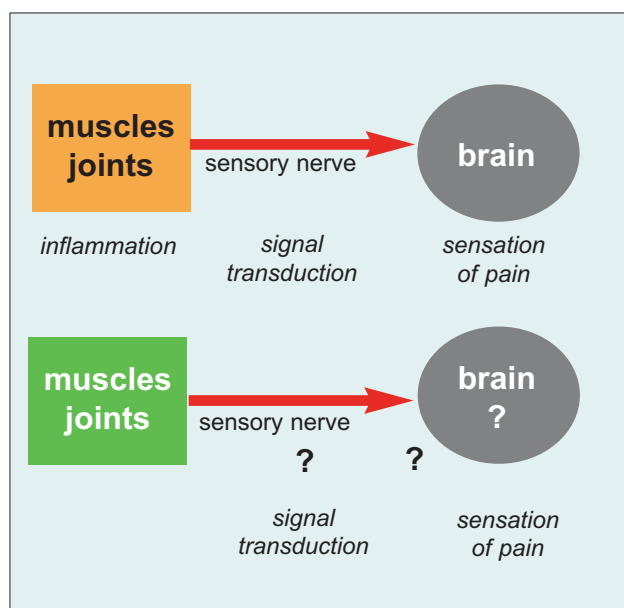


Figure 7.2 Different causes of pain. Above: inflammation in the muscles or joints generates sensory stimuli that travel to the brain via the nerves. Below: sensory stimuli originate in the nerves or the brain but the pain is felt in the muscles or joints.

disorders with peripheral pain (e.g. SLE, RA and ankylosing spondylitis), infections (with Epstein-Barr virus or parvovirus; Lyme disease, Q fever but common cold¹⁴) and physical trauma.

Recent data using spectroscopic techniques suggest involvement of the central nervous system. Harris *et al* demonstrated changes in glutamate/creatinine ratios within the insular cortex, an area implicated in augmented pain perception in FM, in response to treatment.²³ Wood *et al* demonstrated an abnormality in hippocampal brain metabolites in premenopausal female FM patients with no psychiatric comorbidity. A significant negative correlation between patient subjective experience of symptoms and a reduced ratio of N-acetylaspartate to creatine suggested a role for hippocampal pathology.²⁴ Emad *et al* found the same abnormality while the choline/creatinine ratio was normal.²⁵ These new data are very intriguing but it is not clear whether the abnormalities play a role in causing FM or are secondary to chronic pain.

Treatment

Important elements of treatment of fibromyalgia are aerobic exercises, a regular bed-time that guarantees adequate sleep, cognitive behavioural therapy and medication.^{6-10,15-19}

Regular painkillers have little or no effect on the pain. Recent studies examining the efficacy of serotonin and norepinephrine-reuptake inhibitors (duloxetine and milnacipran) and the anticonvulsants gabapentin and pregabalin are encouraging.^{11,16,17}

Abeles *et al*²¹ recently systematically reviewed treatment of FM and Uçeyler *et al*²² treatment with antidepressants in particular. The diagnoses of FM in the reviewed papers was based on the ACR⁵ or earlier criteria that do not take into account the recently described dichotomy of FM patients.¹³ Abeles *et al* reviewed clinical investigations of medicinal and non-medicinal treatments for fibromyalgia dating from 1970 to 2007.²¹ They conclude that no single drug or group of drugs has proved to be particularly useful in treating fibromyalgia patients as a whole. Uçeyler *et al*, on the other hand, concluded that amitriptyline 25-50 mg/day reduced pain, fatigue, and depressive-ness in patients with FM and improved sleep and quality of life.²² They concluded that most selective serotonin as well as serotonin and norepinephrine-reuptake inhibitors are probably also effective. They recommended short-term treatment of patients with FM using amitriptyline or another of the antidepressants that were effective in randomized-controlled trials. They warned that data on long-term efficacy are lacking.

Fibromyalgia and Sjögren's syndrome

A number of symptoms occurring in fibromyalgia can make it difficult to distinguish from Sjögren's syndrome. These are, with the percentage of prevalence in fibromyalgia between brackets:

- fatigue (81%)
- symptoms of dryness (36%)
- irritable bowel (30%)
- urinary urgency (25%)
- Raynaud's phenomenon (17%)

In recent studies fibromyalgia was recorded in 12-55% of patients with Sjögren's syndrome.¹⁻⁴

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