



## Fibromyalgia as a Soft Tissue Rheumatism

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### Introduction

Muscle, tendon, skin, subcutaneous tissue, ligament, fascia, bursa, synovial membrane, nerve, vein, artery can be held as soft tissues by rheumatologic disease. Soft tissue rheumatism local connective tissue rheumatism is also known as rheumatism or local rheumatologic diseases. Under this heading, many diseases such as fibromyalgia, myofascial pain syndrome, trigger finger, supraspinatus tendinitis, plantar fasciitis can be examined [1-4].

### Etiology and Prevalence

Although the etiology has not been fully elucidated, studies on the disease reveal that some of the biochemical, neurohormonal, immunologic, psychological and environmental factors are involved. It is suggested that pain mechanisms in the peripheral and central nervous system are genetically impaired and cause chronic pain [1].

The prevalence in the world varies between 2% and 7.9/10 of the diagnosis are in females. Fibromyalgia prevalence between all rheumatic diseases ranges from 11% to 30%. While most women aged 50-59 are living with the disease, and the prevalence in the population aged 65-80 years is 31%. If the first degree relatives are diagnosed, the person is at eight times at the risk [1].

### Diagnosis Criteria

There were 18 tender points that came to mind earlier in the diagnosis of fibromyalgia. These tender points were criteria identified by the American Rheumatology Association (ACR) in 1990 to diagnose fibromyalgia. However, ACR, which published the current criteria in 2010, has developed the 'Widespread Pain Index' (WPI) (Figure 1) and 'Symptom Severity Scale' (SSS) (Figure 2) for the diagnosis of fibromyalgia. The calculation of the WPI score takes place by giving 1 point for each marked area. In the calculation of the SSS score, 10 separate scores are collected. The obtained number is divided into two to obtain the SSS score. With the updated published in 2011, it was imperative that these symptoms and pain areas should be declared by the patient himself/herself. A patient who meets the following conditions is probably FM. However, it should not be forgotten that not only numerical values but also other factors should be taken into account when diagnosing [6-8].

1. Symptoms and widespread pain have continued for at least 3 months
2. If the Widespread Pain Index score  $\geq 17$
3. If the Symptom Severity Score score is  $\geq 21$

### Laboratory Testing

As with other rheumatic diseases, laboratory tests of fibromyalgia may contain information for both diagnosis and disease progression. Some of the tests that can be applied to a patient who has a suspicion or diagnosis of fibromyalgia are listed below [6];

1. Kidney and liver function tests
2. Calcium / Phosphate Levels
3. Creatine phosphokinase level
4. Erythrocyte Sedimentation Rate / C-reactive Protein
5. Vitamin D
6. Antinuclear Antibody (ANA)
7. HLA-B27

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Received Date: 02 Feb 2018

Accepted Date: 15 Feb 2018

Published Date: 22 Feb 2018

#### Citation:

Saripinarlı B. Fibromyalgia as a Soft Tissue Rheumatism. *Ann Physiother Clin.* 2018; 1(1): 1002.

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### New Clinical Fibromyalgia Diagnostic Criteria – Part 1.

To answer the following questions, patients should take into consideration

- how you felt the **past week**,
- while taking your current therapies and treatments, and
- exclude your pain or symptoms from other known illnesses such as arthritis, Lupus, Sjogren's, etc.

**Determining Your Widespread Pain Index (WPI)**  
The WPI Index score from Part 1 is between 0 and 19.

**Check each area you have felt pain in over the past week.**

<input type="checkbox"/> Shoulder girdle, left	<input type="checkbox"/> Lower leg left
<input type="checkbox"/> Shoulder girdle, right	<input type="checkbox"/> Lower leg right
<input type="checkbox"/> Upper arm, left	<input type="checkbox"/> Jaw left
<input type="checkbox"/> Upper arm, right	<input type="checkbox"/> Jaw right
<input type="checkbox"/> Lower arm, left	<input type="checkbox"/> Chest
<input type="checkbox"/> Lower arm, right	<input type="checkbox"/> Abdomen
<input type="checkbox"/> Hip (buttock) left	<input type="checkbox"/> Neck
<input type="checkbox"/> Hip (buttock) right	<input type="checkbox"/> Upper back
<input type="checkbox"/> Upper leg left	<input type="checkbox"/> Lower back
<input type="checkbox"/> Upper leg right	<input type="checkbox"/> None of these areas

**Count up the number of areas checked and enter your Widespread Pain Index or WPI score here \_\_\_\_.**

Figure 1: 'Widespread Pain Index' (WPI) [4-10].

### Symptom Severity Score (SS score)- Part 2b

**Check each of the following OTHER SYMPTOMS that you have experienced over the past week?**

<input type="checkbox"/> Muscle pain	<input type="checkbox"/> Nervousness	<input type="checkbox"/> Loss/change in taste
<input type="checkbox"/> Irritable bowel syndrome	<input type="checkbox"/> Chest pain	<input type="checkbox"/> Seizures
<input type="checkbox"/> Fatigue/tiredness	<input type="checkbox"/> Blurred vision	<input type="checkbox"/> Dry eyes
<input type="checkbox"/> Thinking or remembering problem	<input type="checkbox"/> Fever	<input type="checkbox"/> Shortness of breath
<input type="checkbox"/> Muscle Weakness	<input type="checkbox"/> Diarrhea	<input type="checkbox"/> Loss of appetite
<input type="checkbox"/> Headache	<input type="checkbox"/> Dry mouth	<input type="checkbox"/> Rash
<input type="checkbox"/> Pain/cramps in abdomen	<input type="checkbox"/> Itching	<input type="checkbox"/> Sun sensitivity
<input type="checkbox"/> Numbness/tingling	<input type="checkbox"/> Wheezing	<input type="checkbox"/> Hearing difficulties
<input type="checkbox"/> Dizziness	<input type="checkbox"/> Raynaud's	<input type="checkbox"/> Easy bruising
<input type="checkbox"/> Insomnia	<input type="checkbox"/> Hives/welts	<input type="checkbox"/> Hair loss
<input type="checkbox"/> Depression	<input type="checkbox"/> Ringing in ears	<input type="checkbox"/> Frequent urination
<input type="checkbox"/> Constipation	<input type="checkbox"/> Vomiting	<input type="checkbox"/> Painful urination
<input type="checkbox"/> Pain in upper abdomen	<input type="checkbox"/> Heartburn	<input type="checkbox"/> Bladder spasms
<input type="checkbox"/> Nausea	<input type="checkbox"/> Oral ulcers	

Count up the number of symptoms checked above.  
\*If you tallied:  
0 symptoms Give yourself a score of 0  
1 to 10 Give yourself a score of 1  
11 to 24 Give yourself a score of 2  
25 or more Give yourself a score of 3

**Enter your score for Part 2b here \_\_\_\_.**

**Now add Part 2a AND 2b scores, and enter \_\_\_\_.**  
This is your Symptom Severity Score (SS score), which can range from 0 to 12.

Figure 2: 'Symptom Severity Scale' (SSS) [4-10].

8. HLA-B51
9. Hormone tests

## Clinical Findings

### Musculoskeletal

Stiffness (continuous), fatigue (usually increased in the morning and with the less activity), no joint findings [7].

### Cardiovascular

Raynaud-like phenomenon or raynaud phenomenon, exercise intolerance, vasomotor disorders [7].

### Sleep

Waking at night, difficulty in falling a sleep, poor sleep quality [7].

### Cognitive

Short-term memory loss, perception disorders [7].

### Psychology

Depression, anxiety, stress [7].

### Pain

Neck shoulder, waist, gluteal area - burning, acne pain or ache; migraine headache; allodynia, hyperalgesia [7].

## Pulmonary

Shortness of breath, chest pain, alveolar hypoventilation [7].

## Gastrointestinal

Diarrhea, constipation, abdominal pain or cramps [7].

## Endocrinal

Adaptation problems due to Hypothalamic / Pituitary / Adrenal (HPA) dysfunction, disomone [7].

## Evaluation

Fibromyalgia affects many systems. Even non-symptomatic systems should be assessed in detail because these systems can also be affected over time, according to prognosis. A good evaluation makes it possible to anticipate problems that may arise in the future and to take precautions for these problems. Evaluations should be carried out due to patients complaint in the foreground and specifying the targets of the possible treatment. It should be determined very well which activities the disease affects the patient's life. Before the patient is evaluated, a detailed examination should be performed and the patient's condition should be clearly demonstrated using specific tests and disease-specific scores. The patient must be assessed taking into account both the patient's statements and the detailed examination of the physiotherapist, laboratory tests, and data obtained from whole body systems [6].

## Treatment Options

### Pharmacological

In the pharmacological treatment of fibromyalgia, it is aimed to reduce or eliminate the symptoms because both the etiology of the disease is not fully understood and there are many symptoms that affect many systems. if the patient's pain is severe, analgesics; for the depressive symptoms tricyclic antidepressants may be given by the specialist [5].

In addition, Serotonin and Norpinephrine Uptake Inhibitors (SnRI), alpha-2 delta ligands, muscle relaxants, opioid derivatives, anticonvulsants, sleeping pills, non-steroidal anti-inflammatory drugs are among the options according to the patient's evaluation results and symptoms [5].

### Behavioral and life style changes

Cognitive-behavioral therapy approaches seem to be effective on the mood disorders and pain seen in fibromyalgia patients. In addition to these therapies performed in the context of specialized psychologists and psychiatrists in this field, studies such as hypnotherapy, belief models can also be shown as an option. Individuals may need to be supported by lifestyle changes such as eating attitudes, sleeping patterns and smoking cessation. The patient needs to actively participate in the treatment by providing and maintaining the necessary life style changes [5-9].

### Physiotherapy and rehabilitation

As mentioned before, the disease can hold different systems that can show different symptoms in each patient. The nature of the illness, the symptoms, the treatment options, the predicted problems should be explained in detail to the patient and his / her caregiver if exists [5].

In-water applications such as hydrotherapy have positive effects on the patients by water's relaxing properties and resistance. Magnetotherapy, ultrasound, laser applications, ESWT applications

in pain-intensive areas, and TENS applications in order to increase circulation, application of electrotherapeutic agents, EMG biofeedback and electroacupuncture can also be used for both pain and circulation enhancement as well as for relaxation.

Whole body or local vibrations, sensory integration therapies, music therapies, or combinations of these, for sensory problems or pain are frequently included in the fibromyalgia treatment plan by physiotherapists [2,5].

Exercise applications for exercise habits or symptoms constitute a large part of the cure. Both reducing the number of depressive symptoms by affecting the individual's well-being and solving problems such as pain and sleep, as well as improving the function is also effective.

If the patient is willing, they should be encouraged and guided to do regular sports. In particular, sports or exercises done with the group will both reduce the symptoms of the disease and help the individual to social and psychological satisfaction. Correct and regular exercise has proven positive effects on all body systems [2,5,9].

## Other Treatment Options

Although the low evidence level following approaches can be added to the fibromyalgia treatment plan [9];

1. Phytotherapy
2. Homeotherapy
3. Nutritional supplements
4. Vitamin D supplement [3]
5. Acupuncture [4]
6. Melatonin

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