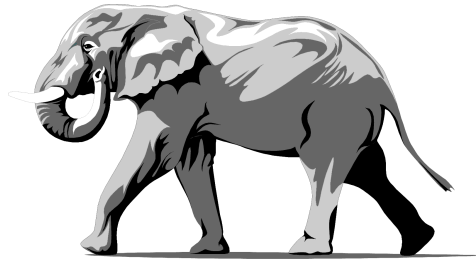


(A) Fibromyalgia

**(B) Myofascial Pain
Syndrome**

(C) All of the Above



By Bernard E. Filner, M.D.

Persons with chronic pain frequently see many practitioners in their quest for a diagnosis and relief from their symptoms. Unfortunately, this quest often resembles the story of the six blind men, each stationed at a different part of the anatomy and then asked to describe the elephant.

Too often, the patient is seen by a practitioner who uses the terms fibromyalgia syndrome (FMS) and myofascial pain syndrome (MFPS) interchangeably, demonstrating a lack of understanding of the significant differences in symptoms, signs, treatment, and prognosis between these two conditions. An additional problem is that patients with FMS almost always also have MFPS. The reverse also occurs, but much less often. The methods of diagnosis, the treatment strategies utilized, and the outcomes achieved are quite different for FMS and MFPS, although there is some overlap. It follows that accurate diagnosis is critical in order for treatment(s) to be effective.

In this brief article, working clinical definitions of the two conditions will be presented, followed by a discussion of their differences and similarities (both in diagnosis and treatment). Finally, some thoughts on the underlying causes of FMS and MFPS will be proposed. Clearly, an extensive presentation of either FMS or MFPS is beyond the scope of this article. FMS has been described in numerous previous issues of *Fibromyalgia Frontiers* while MFPS is covered in several textbooks, the most complete (and in my opinion, the best) is Travell and Simons' *Myofascial Pain Syndrome, A Trigger Point Manual*.

In both of these conditions, there are major and minor criteria to be considered, and even experts may disagree as to the importance (or necessity) of some of the components in making the correct diagnosis. Along with the incorrect approach of viewing FMS and MFPS as "interchangeable", these disagreements add to the confusion and difficulty of assigning a patient to either diagnostic group (or to both groups).

In FMS patients, at least 11 of 18 standard tender points are demonstrated when carefully and reproducibly palpated with consistent pressure. Females predominate, but not exclusively. Sleep often appears adequate but is non-refreshing (thereby being one of the components of chronic fatigue). The soft tissues "feel" different (as demonstrated by a positive skin-rolling test). FMS appears to affect the entire body and is not restricted to a specific region(s).

In MFPS, trigger points (TPs) are found in taut bands within a muscle after careful palpation. In addition, palpation usually produces a twitch response in the band (and frequently in the entire muscle). The muscle containing the TP is usually not in spasm but has a significantly restricted range of motion. When the TP is palpated, the patient often notes pain at the TP site as well as pain (or some other associated symptom) in a "reference zone" at a variable distance from the TP. These reference zones are predictable and reproducible, both in the same patient and between patients. If the TP is active, patients report spontaneous pain

(presenting symptoms) at that site; if latent, usually only restricted range of motion and referred pain are the presenting symptoms. MFPS is usually restricted to functional units (shoulder, hip, back, neck, etc.) and regions, although a patient with many regions affected could present with widespread symptoms as is seen in FMS.

The most important components of proper diagnosis in these conditions are: (1) listening to the patient while taking a complete history, and (2) doing an appropriate physical examination including an extensive palpation of appropriate muscles (consistent with the patient's complaints).

The treatment regimens for FMS patients have been previously presented in this newsletter, including medications, exercise, improved sleep, and looking for/treating any "associated" conditions or diseases. All of these, including "alternative" approaches, should be considered and appropriately used in patients with FMS. There are no "magic cures", short-term therapies, or "cookbook" approaches to either FMS or MFPS. As will be noted below with MFPS patients, to the greatest degree possible, pain relief and improved quality of life (based on the patients' definition(s)) should be the goal of therapy. A "cure", as in the use of antibiotics for an infection or an appendectomy for appendicitis, should not be the aim, although with new understanding of these conditions through research, this may change in the future.

The clinical aim of treatment(s) in patients with MFPS is to restore normal resting length as well as adequate strength and endurance to the affected muscle(s). To achieve this, TPs must be inactivated. If pain is not too severe, TP inactivation can be achieved by heating the muscle(s) and using gentle stretching (preferably passively). Otherwise, TPs can be inactivated by injection, ischemic pressure, (i.e., major pressure is applied for approximately one minute by finger(s) or elbow, while a muscle is being stretched to decrease blood flow to the TP), or occasionally with acupuncture.

Trigger point injections should be administered with a small-gauge needle and a low-volume of a dilute solution of local anesthetic of the type that does not disrupt muscle tissue and function. No anti-inflammatory (i.e., Cortisone or steroid) should be added as this is toxic to muscle tissue, and no evidence of inflammation has ever been clearly demonstrated at the site of a TP. "Dry needling" can be done but is often more painful than a standard trigger point injection. When administered appropriately, the pain attributable to a specific trigger point disappears within seconds of injection.

If a patient has already had TP injections with cortisone administered, (s)he may report that pain was relieved only after a delay of two to three days (or longer). This usually indicates that the cortisone had a systemic effect rather than achieving its effects through the inactivation of a trigger point. It should be noted that trigger point injection is only a means to an end. The end, in this case, is stretching the muscle back to its normal resting length and reconditioning the involved muscles. When these latter two processes result in significant inactivation of trigger points, then further injections are no longer necessary or desirable. Thus, trigger point injection (or inactivation by other means), is a tool primarily for diagnosis and the initiation of therapy until such time as the patient can be weaned from injections and obtain relief from heat and stretching. When trigger points are inactivated, the stretching and reconditioning of a muscle can be accomplished in a much more effective and efficient manner, shortening the overall duration of therapy and improving the degree of pain relief achieved.

Medications are of relatively limited value in patients with "pure" MFPS. Narcotics (or other opiates or opiate-like compounds) are usually ineffective except for providing just enough relief to "take the edge off". Anti-inflammatory medication (NSAIDs, etc.) is only beneficial when it also has a direct analgesic (pain-relieving) action. Vitamin B and C supplements are given to help promote healing and improve muscle and nerve function. Muscle relaxants are of only marginal benefit, as true muscle spasm is not common with MFPS. Antidepressants help with the typical secondary depression seen with chronic pain. Other

medications, including those affecting the sympathetic nervous system, are under study at the present time (as are botulinum toxin injections into trigger points).

When very painful TPs have been inactivated or when the condition is less severe, an adequate program of specific muscle stretching and "re-education" followed by a reconditioning program (for endurance) as pain decreases, are the most important and effective treatments for MFPS. The more deconditioned the patient is when treatment is initiated, the longer the process will take. This phase can be accomplished at home following proper instruction by a qualified medical practitioner or through physical therapy sessions. Because of the lack of weight bearing involved, aquatic therapy in a warm pool is especially beneficial. Patients must also be careful to avoid any situation which increases the activity of trigger points, such as repetitive motion activities, improper lifting, inappropriate ergonomics at a work station, exposure to cold, etc.

Attention must also be paid to associated conditions as noted above for FMS. Frequently, these may be perpetuating factors for the MFPS patient rather than just associated conditions. Among the most common are vitamin deficiencies (which may be marginal), thyroid disorders (hypo or hyperthyroidism), posture, irritable bowel (visceral afferent syndrome), anemia, etc.

A recent discussion by Dr. Myles Schneider in this newsletter demonstrated the importance of posture and the effect of a hyper-pronated gait on posture in patients with FMS [*Fibromyalgia Frontiers*, Summer 1997]. In MFPS patients, the "bioimploded" (or collapsed-as in rounded, dropped shoulders, head-forward, lower back flattened, off balance) posture resulting from long-standing hyperpronation is one of the major (if not the major) perpetuating factors in this chronic condition. In my experience, this postural abnormality is present in most patients with chronic MFPS and must be corrected for treatments to be successful in the long term.

All of the above factors must be considered in the adequate treatment of MFPS. Often a multi-disciplinary and/or integrative approach to therapy is necessary. Dr. Muhammad Yunus, a rheumatologist, has proposed in this newsletter and in other articles, that FMS and MFPS, among other conditions, be viewed as a continuum of disorders [*Fibromyalgia Frontiers*, Fall 1996]. He views FMS as a type of "total body" hyper-irritability syndrome where many sensations are "magnified" and perceived as pain, whereas in other individuals they might produce only minor discomfort. This extra sensitivity is thought to be the result of a biochemical change in the brain and spinal cord, primarily at sites known to be part of the "higher centers" for control of the sympathetic (or autonomic) nervous system (SNS). It is apparent that our understanding of the SNS is most likely very superficial at this point, and much research is being conducted in this area. The referred pain and other associated signs in MFPS are carried in this SNS, and I believe that Dr. Yunus is on the right track in exploring this possibility. Ultimately, our understanding of the SNS (its function and malfunction) will lead to a better understanding of both FMS and MFPS. Hopefully, this will lead to an eventual "cure" of these conditions.

I believe it is clear that FMS and MFPS are distinctly different, but overlapping, conditions. As noted above, the best results will be achieved when a patient is evaluated for each of these conditions and after appropriate individualized treatment plans are developed that take into account the relative contribution of FMS and/or MFPS.

Formerly an anesthesiologist, Bernard Filner, M.D., now specializes in the management of such chronic pain conditions as FMS, MFPS, reflex sympathetic dystrophy, and neuropathic pain. Mentored and tutored by Dr. Janet Travell, he is also skilled in the administration of trigger point injections. Dr. Filner is currently in private practice in Rockville, MD.

