Should Rheumatologists Retain Ownership of Fibromyalgia?





THE FIBROMYALGIA QUANDARY OF THE LAST 2 DECADES

Fibromyalgia (FM) has courted controversy since formal recognition in the mid-1980s¹⁻⁴. Ambivalence regarding the very existence of this condition has at times stimulated heated debate. As FM was initially believed to be a rheumatic complaint due to the presence of body pain and soft tissue tenderness, rheumatologists, by default, have had responsibility for the diagnosis and, often, continued management of these patients. This ownership was consolidated by the development of criteria for diagnosis of FM by the American College of Rheumatology (ACR) in 1990⁵.

Over the last 2 decades there has been an evolution in the understanding and awareness of FM, which may affect between 2% and 4% of the population⁶⁻⁸. The scientific basis for FM is now firmly grounded with objective neurophysiologic evidence. FM can no longer be categorized as a rheumatic disease process, but rather is a pain syndrome centered in the nervous system⁹⁻¹². It is also increasingly clear that optimal management of patients with FM requires the healthcare team to address a broad spectrum of varied complaints that go beyond a simple complaint of pain¹³. We therefore propose that now is the time for rheumatologists to reevaluate their responsibility for both the diagnosis and care of patients with FM.

PRIMARY CARE PHYSICIANS DEMONSTRATE IMPROVED DIAGNOSIS OF FM

This call for change for the care of FM patients seems even more plausible in light of the report by Shleyfer and colleagues in a recent issue of *The Journal*¹⁴. The authors have shown that family physicians can correctly diagnose FM in 70% of patients, and of particular note, other important medical conditions were not missed. This shows considerable improvement from the less satisfactory appreciation of FM by family physicians reported by this same group 10 years ago¹⁵. Their new study is noteworthy from 2 aspects: first, the referring physicians in their current report were

almost as good as the specialist rheumatologist in correctly identifying FM, and second, and most reassuring, other diseases such as treatable rheumatic diseases were not missed in those with another diagnosis.

In the early 1990s, following formal recognition of FM, there was a trend to assign FM diagnosis too freely to women, in particular those presenting with musculoskeletal pain; this resulted in overdiagnosis as well as misdiagnosis^{16,17}. Some authors report that up to 11% of individuals in population studies may be affected by chronic widespread pain, which would account for a large burden of suffering 18. Indeed, we have previously reported that referring physicians ascribed an incorrect diagnosis of FM in two-thirds of patients referred for rheumatology consultation and misdiagnosed inflammatory rheumatic diseases such as FM¹⁷. The current report shows considerable improvement compared to the poor accuracy identified over the past decade. This improved accuracy in the diagnosis by family physicians sets the stage for reconsideration of the optimum healthcare pathway for patients with FM.

The exact diagnoses in the 30% of patients incorrectly given a diagnosis of FM by referring physicians require comment¹⁴. The most common condition to be mislabeled as FM was arthralgia. Arthralgia may evolve into a true arthritic disease, resolve completely, or conceivably manifest a chronic pain syndrome. Irrespective of the outcome for patients diagnosed with arthralgia, no treatment other than symptomatic relief at the time of diagnosis would be indicated. Thus, this incorrect diagnosis is of lesser concern than a missed diagnosis of a true inflammatory rheumatic condition, or other medical illness requiring specific treatment. These include among others hypothyroidism, statin-induced myopathy, and polymyalgia rheumatica, conditions that are familiar to primary care physicians and should not cause confusion.

It is also possible that a diffuse pain syndrome may herald the early stages of either some treatable rheumatologic condition such as rheumatoid arthritis or systemic lupus

See Accuracy of diagnosis of FM by family physicians, page 170, January 2009 issue

Personal non-commercial use only. The Journal of Rheumatology Copyright © 2009. All rights reserved.

erythematosus, or a neurological illness such as multiple sclerosis. Patients in the current study were followed for a period of 6 months without any report of change in diagnosis, once again providing reassurance regarding missing some other important disease. There is probably therefore only a minority of patients with the symptom of chronic widespread pain who truly require specialist evaluation. Conversely, mislabeling a patient with an incorrect diagnosis of FM may also have negative consequences with regard to physical and mental well-being. Unfortunately, to date, the gold standard for diagnosis of FM is simply "the blessing" of the rheumatologist, a practice that is not infallible.

ACCEPTANCE OF THE CONCEPT OF FM

It was with reservation that the medical community gradually accepted FM as a true illness. Some have even vigorously advocated against the validity of patient report of complaint without objective physical findings^{2,3}. The recognition that pain may be present in the absence of measurable clinical abnormality is now fully supported by objective neurophysiological study¹⁹. Abnormalities have been identified at various levels in the peripheral, central, and sympathetic nervous systems, as well as the hypothalamo-pituitary-adrenal axis stress-response system²⁰⁻²⁵.

Unfortunately, to date, there is no single diagnostic test that can be performed in the clinical setting to validate a diagnosis of FM. Even so, the clinical awareness of FM has continued to increase, with publications spanning numerous medical disciplines and with emphasis on a positive clinical diagnosis without the need for extensive and unnecessary investigations¹³. Indeed a positive diagnosis of FM is associated with reduced healthcare utilization and reduction in investigations²⁶. No longer should FM be a diagnosis of exclusion.

The impressive progress in understanding pathogenic mechanisms of FM has, however, not seen a parallel in the clinical arena. This condition continues to present challenges to the clinician from a number of perspectives, including total reliance on subjective patient report of symptoms, absence of an objective test to confirm or refute the complaint, and generally imperfect response to treatments. Although treatment options for FM are increasing, the numerous symptoms associated with this syndrome emphasize the importance of nuances required to effectively manage these patients.

OPTIMAL PATIENT TRAJECTORY

Ideal care of patients with FM in the first instance requires a correct diagnosis, and thereafter, appropriate management. FM is an illness that is highly dependent upon the art of medicine and communication with the patient, qualities that epitomize good primary medical care. There has been repeated emphasis by numerous bodies and authors to curb unnecessary investigation, as well as over-medicalization of

patients presenting with diffuse pain²⁶⁻²⁹. A confident diagnosis can thus be made with use of good clinical skills that combine careful medical history and physical examination, and use of only focused investigations if indicated. Indeed, the American Pain Society currently recommends only minimal laboratory testing to exclude some other diagnosis²⁷, which suffices for the majority of patients. These requirements are all completely within the domain of the primary care physician and do not require specialist input. Unnecessary investigations and consultations will have negative consequences by reinforcing uncertainty in the diagnosis and accentuating the sickness role for these patients.

Almost all patients with FM will have a symptom complex characterized by presence of at least 4 major complaints of variable intensity: pain, sleep disturbance, fatigue, and mood disturbance²⁸. Additional symptoms commonly associated with chronic widespread pain include abdominal complaints, chronic headaches, cognitive changes, and hypersensitivity phenomena. To date, there is no single treatment intervention that successfully addresses all these issues concomitantly. The management of patients with FM is therefore increasingly multifaceted, with a move away from reliance on traditional simple pharmacologic measures, and evidence supporting the use of pain management strategies such as cognitive behavioral training, relaxation, meditation, massage, and others, many of which are unfamiliar to routine rheumatology practice^{13,30-33}. Indeed, even the pharmacologic treatment options for patients with FM are rapidly expanding with the increasing use of adjuvant medications, including antidepressants and antiepileptic drugs³⁴⁻³⁶. Successful management necessitates approaching the patient as a whole biopsychosocial being, with treatment strategies directed towards physical and psychological complaints within the context of family and society.

A PROPOSED CHANGE FOR CARE OF PATIENTS WITH FM

In the ideal world, patients with FM would be best managed in a multidisciplinary healthcare setting with healthcare professionals of various disciplines contributing to care as needed^{32,33}. The perfect world does not exist and therefore only a small proportion of patients with FM are likely to be treated in this ideal setting. What then might be the most realistic, but also effective solution? Although any physician may glibly prescribe a treatment that is less familiar, best medical practice urges that the healthcare provider be thoroughly knowledgeable of these recommendations. The multiple and varied treatment strategies clearly move FM out of the rheumatology domain.

We propose that primary care physicians are today the most appropriate and best qualified physicians to manage these patients. Other healthcare professionals such as neurologists, psychiatrists, or psychologists may be equally capable of managing patients with FM, but again, resources

Personal non-commercial use only. The Journal of Rheumatology Copyright © 2009. All rights reserved.

are limited and would likely preclude continued care and followup.

The time is ripe for rheumatologists to consider abrogating care of these patients for these reasons: the pathogenesis of FM is now firmly centered in the nervous system, and FM is not a musculoskeletal complaint. Optimal patient management requires attention to the many symptom components of FM in addition to pain management. Patients with FM will also require prolonged care with continued tailoring of treatments, as symptoms are likely to change over time. Finally, as 2% to 4% of the population suffers from FM, it would be unrealistic to require that all or most of these patients be evaluated or followed by rheumatologists.

A heightened awareness of FM in the past decade has been practically translated into improved recognition of FM by family physicians in Israel. We hope that this improvement exists in other countries, but it still requires verification. With a definite move away from a musculoskeletal focused process, patients with FM should no longer require rheumatologic evaluation and there should be a shift of responsibility for both diagnosis and care of patients into the primary care setting. Energy should now be directed to ensure adequate education for treating physicians regarding differential diagnosis of diffuse pain syndromes, awareness of confounding conditions, and appreciation of treatment options, which should be tailored to individual patient needs.

YORAM SHIR, MD,

Montreal General Hospital Pain Centre, Montreal General Hospital;

MARY-ANN FITZCHARLES, MB, CHB, FRCPC,

Montreal General Hospital Pain Centre, and Division of Rheumatology, McGill University, Montreal, Quebec, Canada

Address reprint requests to Dr. M-A. Fitzcharles, Montreal General Hospital, 1650 Cedar Avenue, Montreal, Quebec H3G 1A4, Canada. E-mail: mary-ann.fitzcharles@muhc.mcgill.ca

REFERENCES

- Wolfe F, Hawley DJ, Cathey MA, Caro X, Russell IJ. Fibrositis: Symptom frequency and criteria for diagnosis. An evaluation of 291 rheumatic disease patients and 58 normal individuals. J Rheumatol 1985;12:1159-63.
- Ehrlich GE. Fibromyalgia, a virtual disease. Clin Rheumatol 2003;22:8-11.
- Hadler NM. "Fibromyalgia" and the medicalization of misery. J Rheumatol 2003;30:1668-70.
- Fitzcharles MA. Is fibromyalgia a distinct clinical entity? The approving rheumatologist's evidence. Baillieres Best Pract Res Clin Rheumatol 1999;13:437-43.
- Wolfe F, Smythe HA, Yunus MB, et al. The American College of Rheumatology 1990 criteria for the classification of fibromyalgia. Arthritis Rheum 1990;33:160-72.
- Wolfe F, Ross K, Anderson J, Russell IJ, Hebert L. The prevalence and characteristics of fibromyalgia in the general population. Arthritis Rheum 1995;35:19-28.
- 7. McNally JD, Matheson DA, Bakowsky VS. The epidemiology of

- self-reported fibromyalgia in Canada. Chronic Dis Can 2006;27:9-16.
- White KP, Speechley M, Harth M, Ostbye T. The London Fibromyalgia Epidemiology Study: the prevalence of fibromyalgia syndrome in London, Ontario. J Rheumatol 1999;26:1570-6.
- Pillemer SR, Bradley LA, Crofford LJ, Moldofsky H, Chrousos GP. The neuroscience and endocrinology of fibromyalgia. Arthritis Rheum 1997;11:1928-39.
- Yunus MB. Fibromyalgia and overlapping disorders: the unifying concept of central sensitivity syndromes. Semin Arthritis Rheum 2007;36:339-56.
- Perrot S, Dickenson AH, Bennett RM. Fibromyalgia: harmonizing science with clinical practice considerations. Pain Pract 2008;8:177-89.
- Ablin J, Neumann L, Buskila D. Pathogenesis of fibromyalgia a review. Joint Bone Spine 2008;75:273-9.
- Bennett RM. The rational management of fibromyalgia patients. Rheum Dis Clin North Am 2002;28:181-99.
- Shleyfer E, Jotkowitz A, Karmon A, Nevzorov R, Cohen H, Buskila D. Accuracy of the diagnosis of fibromyalgia by family physicians: is the pendulum shifting? J Rheumatol 2009;36:170-3.
- Buskila D, Neumann L, Sibirski D, Shvartzman P. Awareness of diagnostic and clinical features of fibromyalgia among family physicians. Fam Pract 1997;14:238-41.
- Fitzcharles MA, Esdaile JM. The overdiagnosis of fibromyalgia syndrome. Am J Med 1997;103:44-50.
- Fitzcharles MA, Boulos P. Inaccuracy in the diagnosis of fibromyalgia syndrome: analysis of referrals. Rheumatology 2003;42:263-7.
- Croft P, Rigby AS, Boswell R, Schollum J, Silman A. The prevalence of chronic widespread pain in the general population. J Rheumatol 1993;20:710-3.
- Price DD, Staud R. Neurobiology of fibromyalgia syndrome. J Rheumatol 2005;32 Suppl 75:22-8.
- Gibson SJ, Littlejohn GO, Gorman MM, Helme RD, Granges G. Altered heat pain thresholds and cerebral event-related potentials following painful CO2 laser stimulation in subjects with fibromyalgia syndrome. Pain 1994;58:185-93.
- Russell IJ, Orr MD, Littman B, et al. Elevated cerebrospinal fluid levels of substance P in patients with the fibromyalgia syndrome. Arthritis Rheum 1994;37:1593-601.
- Gracely RH, Petzke F, Wolf JM, Clauw DJ. Functional magnetic resonance imaging evidence of augmented pain processing in fibromyalgia. Arthritis Rheum 2002;46:1333-43.
- Julien N, Goffaux P, Arsenault P, Marchand S. Widespread pain in fibromyalgia is related to a deficit of endogenous pain inhibition. Pain 2005;114:295-302.
- Griep EN, Boersma JW, Kloet ER. Altered reactivity of the hypothalamic-pituitary-adrenal axis in the primary fibromyalgia syndrome. J Rheumatol 1993;20:469-74.
- Petzke F, Clauw DJ. Sympathetic nervous system function in fibromyalgia. Curr Rheumatol Rep 2000;2:116-23.
- Hughes G, Martinez C, Myon E, Taieb C, Wessely S. The impact of a diagnosis of fibromyalgia on health care resource use by primary care patients in the UK: an observational study based on clinical practice. Arthritis Rheum 2006;54:177-83.
- Goldenberg DL, Burckhardt C, Crofford L. Management of fibromyalgia syndrome. JAMA 2004;292:2388-9.
- 28. Mease P, Arnold LM, Bennett R, et al. Fibromyalgia syndrome. J Rheumatol 2007;34:1415-25.
- Fibromyalgia Syndrome Pain Management Guideline Panel 2002-2005, Burckhardt C, Goldenberg D, et al. Guideline for the management of fibromyalgia pain in adults and children: APS clinical practice guideline series. No. 4. Glenview, IL: American Pain Society; 2005.
- 30. Carville SF, Arendt-Nielsen S, Bliddal H, et al. EULAR

Personal non-commercial use only. The Journal of Rheumatology Copyright @ 2009. All rights reserved.

- evidence-based recommendations for the management of fibromyalgia syndrome. Ann Rheum Dis 2008;67:536-41.
- Sim J, Adams N. Systematic review of randomized controlled trials of nonpharmacological interventions for fibromyalgia. Clin J Pain 2002;18:324-36.
- Oliver K, Cronan T, Walen A. A review of multidisciplinary interventions for fibromyalgia patients: Where do we go from here?
 J Musculoskeletal Pain 2001;9:63-80.
- Scascighini L, Toma V, Dober-Spielmann S, Sprott H.
 Multidisciplinary treatment for chronic pain: a systematic review of interventions and outcomes. Rheumatology 2008;47:670-8.
- Barkhuizen A. Rational and targeted pharmacologic treatment of fibromyalgia. Rheum Dis Clin North Am 2002;28:261-90.
- Crofford LJ. Pain management in fibromyalgia. Curr Opin Rheumatol 2008;20:246-50.
- 36. Fishbain D. Evidence-based data on pain relief with antidepressants. Ann Med 2000;32:305-16.

J Rheumatol 2009;36:667-70; doi:10.3899/jrheum.081073