

## Fibromyalgia: Improving Awareness to Improve Recognition and Outcome

by Lisa Brauer, PhD

May 12 was Fibromyalgia Awareness Day, an important national event for a common but vastly under-recognized syndrome. Fibromyalgia affects 2% to 12% of the United States population, most often women.<sup>1</sup> It is characterized by chronic, widespread muscular and soft tissue pain, which varies in intensity over time.<sup>2</sup> Many patients have additional symptoms including fatigue, headaches, irritable bowel syndrome, cognitive problems, restless leg syndrome, anxiety, and depression.<sup>3</sup> Fibromyalgia is associated with poor quality of life as well as varying degrees of disability. According to the National Fibromyalgia Association ([www.fmaware.org](http://www.fmaware.org)), twice as many patients with disability as patients without it have received disability payments, and not surprisingly their healthcare costs are also twice as high. It also reports that the cost of fibromyalgia in the United States ranges from \$12 to \$14 million annually, and accounts for up to 2% of the nation's lost productivity. Individual patients with fibromyalgia average more than \$2,000 annually in healthcare costs associated with their condition.<sup>4</sup>

In spite of the striking disability that can be associated with fibromyalgia, many physicians remain skeptical about the disease as a discrete syndrome and may not include it in the differential diagnosis of their patients with relevant symptoms. A recent survey found that the diagnosis of fibromyalgia is often delayed, requiring up to 2.7 years and four different physicians to provide an accurate diagnosis.<sup>5</sup> Even among physicians who are aware of fibromyalgia, it is often under-diagnosed, in part because patients often look otherwise healthy and results of routine blood tests are often normal. Nevertheless, the under-diagnosis of fibromyalgia is troubling, not only because it prolongs patient suffering and the initiation of treatment, but also because it leads to increased visits to primary care, testing, and prescriptions, which are associated with additional cost.<sup>6</sup> According to Ernest Choy, MD, a rheumatologist at GKT School of Medicine at King's College in London, "Patients are already slow to seek consultation with a physician, and a lack of physician training in the recognition of fibromyalgia aggravates the delay in making the diagnosis and starting treatment." New lines of research documenting neurobiological and neuroendocrine correlates of clinical symptoms in patients with fibromyalgia may improve physician acceptance and assessment. For example, new brain imaging data demonstrate measurable and exaggerated pain responses in patients with fibromyalgia in response to a gentle stimulus, reflective of clinical allodynia.<sup>7</sup>

The complexity in recognizing, diagnosing, and managing fibromyalgia relates in part to the variable presentation and chronic course of the disease. In a recent review of the literature, Carville and colleagues state that, "Full understanding of fibromyalgia requires comprehensive assessment of pain, function, and psychosocial context. Fibromyalgia should be recognized as a complex and heterogeneous condition where there are abnormal pain processing and other secondary features."<sup>4</sup> Diagnosis is typically made based on a pain history, sometimes supplemented with pain diagrams or assessment instruments, including the Fibromyalgia Impact Questionnaire (FIQ).<sup>8</sup> According to a report by the American Medical Association,<sup>9</sup> fibromyalgia consists of "generalized aching and stiffness of the trunk and hip and shoulder girdles, and patients complain of pain even after mild exertion. Pain is typically unremitting, and it has been described as burning or gnawing, soreness, stiffness or aching." In addition, patients characteristically show evidence of specific tender points, fatigue, and sometimes sleep disturbances and headaches. Differential diagnosis requires understanding of the characteristic multifocal nature of fibromyalgia as well as the presence of allodynia as compared to other conditions manifesting generalized pain.

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Ideally, treatment for fibromyalgia should be multidisciplinary, and include both pharmacologic and nonpharmacologic strategies that are individualized in light of pain intensity, functional impairment, and ancillary symptoms. Christine N. Huynh, MD, from the Virginia Commonwealth University School of Medicine in Richmond, VA, explains that, "Physician awareness of effective nonpharmacologic and pharmacologic therapies can minimize ineffective prescribing and patient frustration associated with failure of therapy. As growing evidence from well-designed studies becomes available, physicians can confidently employ a practical and evidence-based approach to this once ill-defined syndrome."

Nonpharmacological treatments shown to be beneficial include massage, exercise, acupuncture, and cognitive behavioral therapy.<sup>10</sup> Patient education is also a vitally important component of treatment.<sup>10</sup> Three drugs are currently approved by the FDA for the treatment of fibromyalgia. Duloxetine is a dual-acting serotonin/norepinephrine reuptake inhibitor (SNRI) that has been shown to improve mood, reduce pain, help with sleep in patients with fibromyalgia,<sup>11-13</sup> and have a more favorable side effects profile than selective serotonin reuptake inhibitors or tricyclic antidepressants. Pregabalin, an anticonvulsant, also has received FDA approval for fibromyalgia. Pregabalin binds with high affinity to the alpha2-delta site (an auxiliary subunit of voltage-gated calcium channels) and has been found to reduce pain in patients with fibromyalgia.<sup>14</sup> Finally, milnacipran, which inhibits reuptake of norepinephrine and serotonin to a similar degree, has shown promise for improving the management of pain symptoms in this population relative to available agents with predominantly serotonergic effects.

The National Fibromyalgia Association underscores the importance of increasing both patient and physician awareness of the syndrome as well as steps that can be taken to reduce disability. "While many strides have been made in the last decade, fibromyalgia remains a challenging condition. However, clinical studies have demonstrated that fibromyalgia patients can reduce their symptoms through a variety of treatment options. Working in conjunction with knowledgeable healthcare professions, motivated and informed patients can experience significant improvement in their symptoms and quality of life. Developing an individualized self-management plan, from identifying effective treatment approaches to making necessary lifestyle changes, will further improve one's health."

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