CLINICAL VIGNETTE

More Than Fibromyalgia

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Case Report

A 43-year-old male presented to rheumatology for evaluation of fibromyalgia. He has a history of lumbar disc disease that required surgery 3 years prior and continues to have intermittent right radiculopathy. In the past 2 years he has developed progressive pain throughout the body involving his neck, spine, chest, arms and legs. The pain is worse in the morning with severe stiffness and improves with activity but is constant. He saw an outside physician who diagnosed him with fibromyalgia after a lab and imaging evaluation was unremarkable. He then underwent multiple rounds of physical therapy, acupuncture, trigger point injections and chiropractor sessions without any relief. He was placed on pregabalin 200mg twice daily, duloxetine 60mg daily and amitriptyline 25mg at night also with minimal relief prompting rheumatology consultation. He was taking no other medications and had no other complaints. He had no other significant past medical or surgical history. His social history was notable for a 15-pack year smoking history and his family history was notable for having a sister with psoriatic arthritis.

His physical exam was significant for tenderness and swelling at the left 1st MCP joint as well as the left elbow. He had bilateral shoulder tenderness with minimal reduction in his range of motion. He had myofascial pain in the paraspinal and costochondral regions. He had no rashes. Laboratory studies showed normal CBC, comprehensive metabolic panel, sedimentation rate, C-reactive protein, TSH, CK, aldolase, vitamin D and vitamin B12. Infectious labs were negative for HIV, Hepatitis B and C, TB and lyme disease. Autoimmune serologies were negative for ANA, rheumatoid factor, CCP antibodies, celiac and HLA B27. Chest x-ray was normal. X-rays of the cervical, thoracic, and lumbar spine showed moderate degenerative disc disease at L4-5 but was otherwise normal, including the sacroiliac joints. An MRI of the lumbar spine showed L4-5 post-operative changes with a 2mm broad based disc protrusion with moderate to severe right foraminal stenosis and mild left foraminal stenosis.

Despite the results of the initial testing, there was still a concern for an underlying autoimmune inflammatory arthritis given the increased morning pain with stiffness that improved with activity, the asymmetric arthritis on physical exam and the family history of autoimmunity. A bone scan showed increase tracer activity in the wrists, shoulders, elbows and ankle joints consistent with inflammatory arthritis. He was diagnosed with Ankylosing Spondylitis and started on adalimumab with significant improvement in his pain. He was able to taper off the amitriptyline and pregabalin but remained on the duloxetine for residual myofascial pain.

Discussion

Fibromyalgia is a noninflammatory condition characterized by chronic, widespread musculoskeletal pain thought to be due to the increase processing of pain by the central nervous system, whereas ankylosing spondylitis is an autoimmune inflammatory disease affecting the axial spine, entheses and the peripheral joints. Even though fibromyalgia and ankylosing spondylitis differ in their pathogenesis, considerable clinical overlap exists between the two conditions.[1] Distinguishing ankylosing spondylitis from fibromyalgia is problematic since the key clinical feature in both conditions is axial skeletal pain. Also, the enthesitis seen in ankylosing spondylitis can result in multisite pain which is a cardinal feature in the diagnosis of fibromyalgia.[2] Furthermore, family history, chronic pain, fatigue, spine stiffness and sleep disturbances are common in both diseases.[3] The distinction is extremely important as both conditions are treated in very different ways.

Diagnosing Ankylosing Spondylitis on its own is often challenging. There is a high prevalence of back pain in the general population, slow progression of the disease, lack of specific symptoms and biomarkers, limited awareness of the condition and radiographic changes may take a number of years to develop. According to patient experience reports, only 37% of patients receive a diagnosis of Ankylosing Spondylitis within 1 year and about 32% waited more than a decade to receive their diagnosis. This often takes a psychological toll on the patient as years are spent with inadequately treated pain.[4]

Fibromyalgia can also coexist with inflammatory rheumatic diseases in general. The UK national study demonstrated that 1 in 5 patients with ankylosing spondylitis met criteria for fibromyalgia. Patients who met criteria for fibromyalgia had worse disease indices, greater number of comorbidities, poorer quality of life and greater impact at work. Interestingly, there were no measured differences in levels of inflammation or extraspinal disease manifestations.[2] Having co-existent fibromyalgia did not influence response to anti-TNF therapy but those who scored high on the symptom severity scale for fibromyalgia, were more likely to require additional fibromyalgia targeted pharmacologic therapy.[5]

In conclusion, clinicians treating patients with fibromyalgia should maintain a strong suspicion for the possibility of an unsuspected underlying inflammatory spondyloarthropathy[1] and similarly the coexistence of fibromyalgia should be kept in mind when evaluating patients with ankylosing spondylitis.[3] A treatment strategy targeting both conditions will likely lead to the best therapeutic outcomes.

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