Pyomyositis is an abscess-forming bacterial infection of skeletal muscle. Whereas pyomyositis is more common in the tropics (tropical pyomyositis), temperate pyomyositis is now seen with increasing incidence in temperate countries including the United States. Staphylococcus aureus is the most frequently isolated organism. Recognized predisposing factors include trauma, HIV infection, diabetes mellitus, corticosteroid therapy, and malignancy. The association between pyomyositis and injection drug use in the absence any of the above predisposing factors has rarely been described. In this case, a 36-year-old intravenous (IV) drug user presented with acute staphylococcal pyomyositis that developed in the absence of HIV infection and other predisposing factors.

The patient was admitted to the hospital with a 5-day history of fever and severe right-sided, low back pain. Physical examination was remarkable for tenderness in the right paraspinal area corresponding to the L2-S1 vertebrae. Plain films of the lumbosacral spine were unremarkable. However, magnetic resonance imaging of the lumbosacral spine revealed inflammation and muscle edema, a finding highly suggestive of the initial stage of pyomyositis (Figure). Blood cultures grew methicillin-sensitive S aureus, and IV nafcillin therapy was instituted.

Pyomyositis is very uncommon in the United States, with only about 100 cases reported up until the early 1990s. With the increasing number of immunocompromised patients and injection drug users, pyomyositis is being recognized more often in recent years. Pyomyositis is rare, but well documented in injection drug users. The etiology of pyomyositis remains unclear. This disease may give rise to obscure, nonspecific, or misleading signs and symptoms.

Pyomyositis can present in 3 stages. The first stage is characterized by muscle pain and low-grade fever, indicating myositis without abscess formation. Diagnosis typically takes place during the second stage when the patient presents with severe muscle pain, swelling, fever, and abscess formation in the affected muscle. The third stage includes septicemia and possible septic shock. Patients presenting during the first stage may require only appropriate antibiotic therapy, whereas those presenting in the latter stages will require surgical drainage, as well. The diagnosis of pyomyositis requires a high degree of clinical suspicion; therefore, pyomyositis should be considered and evaluated with computerized tomographic or magnetic resonance imaging of the affected area in injection drug users presenting with muscle pain, fever, and swelling. It is important for clinicians to recognize this potentially life threatening, but easily curable, disease.

References