AN UNUSUAL PRESENTATION OF SUBACUTE BACTERIAL ENDOCARDITIS MANIFESTING AS INFECTIOUS FOREARM PYOMYOSITIS

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Background: Infective endocarditis is an infectious disease of the endocardium that can lead to vegetations on heart valves, with potential destruction, myocardial abscess and, if untreated, death. The musculoskeletal manifestations of endocarditis are wide ranging but poorly recognized. We report an unusual presentation of subacute bacterial endocarditis presenting as pyomyositis of the forearm in a patient with no obvious risk factors for infective endocarditis.

Methods: A previously fit and well 27-year-old British African woman presented to the acute medical team and was referred to rheumatology with a 1-week history of severe left upper limb pain. She had a 2 month history of generalized malaise that had followed a non-specific viral illness that manifested as vomiting and flu-like symptoms. She noted a concomitant 13 kg unintentional weight loss over this period. Two weeks prior to admission, she had completed a 10-day course of oral flucloxacillin from her general practitioner for presumed cellulitis of the skin overlying her left thumb and index finger. The erythema had since dissipated.

Results: On assessment, she was febrile but haemodynamically stable. There was objective swelling of the left forearm relative to the right with overlying warmth. She had diffuse arthralgia of her left wrist and first and second MCP joints, but no synovitis. Palpation of the left forearm flexor compartment and finger flexion caused severe pain. The remainder of her musculoskeletal examination was normal. Systemic examination identified a pansystolic murmur audible throughout the precordium. The initial blood panel revealed normocytic anaemia (haemoglobin 102 g/l), neutrophilia (18.6 × 109) and a marked acute phase response (CRP 227 mg/l, ESR 112 mm/h). Baseline immunology and urinalysis were negative. Following an abnormal bedside US by the rheumatologists, an urgent forearm MRI was done that showed an inflammatory phlegmon of the proximal deep flexor musculature of the forearm with diffuse flexor compartment myositis and features suggestive of an infective myositis. She proceeded to a left forearm
examination under anaesthetic, with debridement, fasciotomy and washout. A muscle biopsy demonstrated mixed inflammatory infiltrate and areas of focal myonecrosis. Transthoracic echocardiography confirmed a mitral valve mass with moderate regurgitation. Serial blood cultures grew Streptococcus viridans. She had an excellent response to an extended antimicrobial course. She made a good clinical recovery, with resolution of the mass and regurgitation on repeat interval echocardiography and no major clinical sequelae.

**Conclusion:** Rheumatic presentations of infective endocarditis include arthralgia, arthritis, back pain and myalgias. Rarer presentations include Achilles tendonitis, sacroilitis, bursitis and dermatomyositis mimics, however, endocarditis presenting as pyomyositis is incredibly rare. Case series have shown musculoskeletal manifestations tend to present early in disease and can be the presenting feature in up to 30% of patients with infective endocarditis. If not recognized, they may cause significant delays in diagnosis with resulting morbidity and mortality.

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