Histoplasmosis of the left wrist in an immunosuppressed host with myasthenia gravis

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Introduction: Myasthenia gravis (MG) is an NMJ disorder targeting acetylcholine receptors. Symptomatic treatment inhibits acetylcholinesterase, while long-term therapies target immune system overactivation. Prednisone inhibits antibodies; mycophenolate mofetil decreases T&B lymphocyte proliferation. Immunosuppressants pose opportunistic infection risks, such as histoplasmosis due to Histoplasma capsulatum spores.

Case Presentation: A 55-year old male with MG on prednisone 40mg/daily and mycophenolate mofetil 1,500mg/daily presented with left wrist pain and forearm swelling one month prior, following a gardening injury. Cellulitis treated with trimethoprim-sulfamethoxazole and doxycycline without improvement, and started on IV vancomycin. CT revealed olecranon bursitis and soft tissue inflammation. Patient underwent debridement; serous fluid was cultured. Patient discharged after 5 days on trimethoprim-sulfamethoxazole 800mg-160mg twice/daily. Fluid histoplasma antibodies tested positive. CXR unremarkable for pulmonary histoplasmosis.

Patient was prescribed itraconazole 100mg/twice daily for 9 months. After 6 weeks, patient reported open left foot wound, without underlying trauma. MRI revealed soft tissue swelling consistent with cellulitis. The patient underwent debridement due to cutaneous histoplasmosis history. Cultures revealed Streptococcus agalactiae. Patient prescribed amoxicillin- clavulanate 875-125mg BID and foot healed. 16 months post-itraconazole therapy, patient revealed no cyanosis nor edema with a left sporotrichoid scar along the ulnar lymphatics from resolved infection.

Conclusion: Corticosteroids are vital for rheumatological therapies but involve diabetes, avascular necrosis, osteoporosis, and CVD. Their anti-inflammatory properties contribute to lymphocytopenia and pose dose-dependent infectious risks. Opportunistic pathogens should be evaluated in MG patients including VZV, tuberculosis, PJP, aspergillosis, candidiasis, and cryptococcosis. This case is a rare example of isolated extrapulmonary histoplasmosis in an immunocompromised patient. Immunosuppressed MG patients should be

educated on risk of infections. Lower corticosteroid dosages decrease infection risk. PJP prophylaxis should be offered in appropriate patients. Vaccinations and lifestyle modifications reduce infectious complications. This case highlights the importance of early detection and the challenges opportunistic infections pose to patients undergoing immunosuppressive therapy.

