A Case of Fastidious Mycobacteria Chelonae-Causative Cellulitis: Clinical Manifestations of Rare Bacteria

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Abstract

Background: Cellulitis, a localized infection of the deep dermis and subcutaneous tissue, is a common medical diagnosis resulting in thousands of hospital admissions and billions of dollars in treatment costs annually. Cellulitis is most commonly caused by the organism Streptococcus pyogenes, or Group A Strep (GAS). The organism species of nontuberculous Mycobacteria include all Mycobacterium other than M. tuberculosis or M. leprae. M. chelonae is a rare species of nontuberculous Mycobacterium and is sparsely identified in 0.08 to 0.2 cases per 100,000 people.

Case Report: This case report details the clinical course and treatment of a 43-year-old immunocompetent female with lower-extremity cellulitis with worsening symptoms despite extensive workup, culture, and empiric treatment for typical causative organisms. After an extended series of hospital stays utilizing ceftriaxone, piperacillin/tazobactam, vancomycin, and doxycycline, progress was not evident in treating the cellulitis. M. chelonae was eventually identified as the causative organism and successfully treated with clarithromycin thereafter.

Discussion: M. chelonae should be considered as a potential causative organism in patients with long-term intractable skin lesion whose symptoms do not improve with standard treatment.

Conclusion: Although exceedingly rare, M. chelonae is an etiologic agent of cellulitis in both immunocompetent and immunocompromised patients. Consideration is warranted in atypical cases and treatment should be initiated based on culture sensitivities.