Granulomatosis with polyangiitis: An example of diagnostic (confirmation) bias

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Abstract

A 58-year-old woman presented to the emergency department with progressively worsening malaise, headache, and mastoid tenderness. She had a history of chronic bilateral mastoiditis and underwent bilateral mastoidectomies and nerve decompression two months prior. On this admission, the patient's clinical presentation was concerning for either vasculitis or an infectious process. Given the clinical history, elevated inflammatory markers, and nuclear medicine bone scan concerning for osteomyelitis, the patient was started on empiric antibiotic therapy and underwent an extensive infectious workup. After the workup failed to reveal an infectious etiology and her condition worsened despite treatment, the team reconsidered vasculitis. An elevated c-ANCA titer along with a PR3 >30, a urinalysis without RBC casts, and a computerized tomography (CT) without pulmonary nodules confirmed the diagnosis of granulomatosis with polyangiitis (GPA) with limited involvement. The patient was treated with high-dose intravenous steroids and Rituximab infusions with good effect. This case highlighted the impact of diagnostic (confirmation) bias in clinical decision-making as the clinical history and imaging findings led to an extensive infectious workup despite negative microbiology.

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