

An Unexpected Cause of Headache and Splenic Lesions During anti-TNF Therapy in Crohn's Disease

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Abstract

Anti-tumor necrosis factor (TNF) agents have revolutionized the treatment of several immune-mediated inflammatory diseases, including Crohn's disease and ulcerative colitis. Although greatly effective, these biologics put the patients at increased risk for developing serious and opportunistic infections and some types of cancer as lymphomas, the latter one especially when on combination of anti-TNF and thiopurines. Here we report a male who developed an atypical presentation of a severe opportunistic infection when using anti-TNF agent for Crohn's disease treatment.

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Here we report a male who developed an atypical presentation of a severe opportunistic infection when using anti-TNF agent for Crohn's disease treatment.

A 27-year-old man was admitted with a 4-week history of progressively severe headache, left-upper-quadrant abdominal pain, and intermittent fever. He had been diagnosed with severe Crohn's ileitis 10 months earlier and successfully managed with adalimumab. The physical examination revealed only splenomegaly with no neurological signs. An abdominal CT showed splenomegaly with multiple hypointense nodules involving the spleen (Fig. 1). An apicoposterior lung consolidation was observed on chest CT. Cranial MRI showed a multilobular, well-defined ring enhanced lesion within the cerebellar hemispheres (Fig. 2). Acid-fast staining and culture from the bronchoalveolar lavage fluid provided the diagnosis of tuberculosis (TB). The anti-TNF agent was discontinued, and a 4-drug regimen of anti-tuberculosis therapy started. Due to the worsening of headache and vomiting and no change in image workup, excision of the cerebellar lesion after 3 months of anti-tuberculosis therapy was indicated, revealing central caseous necrosis surrounded by granulomatous inflammation on pathology analysis. The Mycobacterial culture was positive. Subsequently, the patient underwent splenectomy that showed multiple abscesses (Fig. 3) and granulomas with caseous necrosis. Currently, the patient stays asymptomatic on vedolizumab for Crohn's disease treatment.

Anti-TNF therapy is associated with an increased risk for TB reactivation given the crucial role of TNF- α in granuloma formation and maintenance.^{1,2} In this setting, TB is commonly more severe being often disseminated or extra-pulmonary.^{2,3} Splenic TB present mostly as splenomegaly, and nodules of various sizes. In most patients splenectomy is necessary not only for diagnosis but also for treatment.⁴ Central nervous system (CNS) tuberculoma frequently presents with non-specific symptoms, and although standard TB treatment is recommended, surgical resection may be needed to mitigate any mass effect.⁵ In patients presenting persistent headache and unexplained splenic nodules during anti-TNF therapy clinicians need to consider disseminated

TB diagnosis. In this scenario, discontinue anti-TNF therapy, start anti-TB treatment, and even sometimes timely surgery is pivotal.

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