

LEFLUNOMIDE-INDUCED COLITIS IN IMMUNOSUPPRESSED PATIENT WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND RHEUMATOID ARTHRITIS

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Background: Leflunomide is an oral disease-modifying antirheumatic drug (DMARD), with anti-inflammatory and immunomodulatory properties that has been in use since 1998. Common leflunomide side-effects include gastrointestinal symptoms (nausea, abdominal pain and diarrhea), occurring in 10-20% of patients treated with leflunomide. Scarce evidence exists that leflunomide can cause colitis.

Aims: We present the case of a 61-year-old female, with Lupus Erythematosus who presented with colitis induced by long-term leflunomide treatment.

Methods: Case report and review of literature

Results: A 61-year-old female was seen by the gastroenterology team with complaints of diarrhea ongoing for 6 weeks associated with 10 lb weight loss. The patient had a complex medical history, including lupus, hypothyroidism, asthma, atrial fibrillation, recurrent *C. difficile* infection, Bell's palsy and avascular necrosis secondary to long-term corticosteroid therapy. Previous immunosuppressive therapies included prednisone, mycophenolic acid (Myfortic), hydroxychloroquine, azathioprine, mycophenolate (CellCept) but due to multiple intolerances, she was initiated on leflunomide in 2014 and has been maintained on it since.

Stool analysis ruled out infectious causes. COVID-19 testing was also negative. A CT of the abdomen revealed pancolitis. This was confirmed on colonoscopy, which revealed mild, Mayo 1 pancolitis and normal terminal ileum. She was initiated on Mezavant as a treatment for possible ulcerative colitis. However, during the hospitalization her symptoms, worsened and bloody diarrhea was noted. She underwent a subsequent endoscopic evaluation which revealed more severe disease, Mayo 2-3 colitis, with mucosal hyperemia and ulcerations, as well as effacement of the vasculature. Initial pathology results revealed mild colitis, but repeat pathology results revealed moderate active colitis, with cryptitis, crypt abscesses and significant apoptosis consistent with drug-induced colitis. Given these findings, the diagnosis of leflunomide-induced colitis was made. Leflunomide was therefore discontinued, the patient was initiated on a higher dose of corticosteroids and cholestyramine was

initiated. Following these measures, her diarrhea resolved.

Conclusions: Leflunomide may cause diarrhea in up to 33% of patients. Challenges related to the diagnosis of leflunomide-induced colitis exist, including the rarity of the diagnosis, a not completely understood mechanism for acute leflunomide-induced diarrhea, as well as variable endoscopic and histologic findings associated with the diagnosis. This report illustrates a case of leflunomide-induced colitis which should be considered in patients on leflunomide, who present with symptoms of abdominal pain and diarrhea, even years after medication initiation.

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