Letters to the Editor

Familial Mediterranean fever and Celiac sprue – Are they related?

Sirs,

Familial Mediterranean fever (FMF) is a genetic inflammatory disease, presenting with recurrent febrile bouts of peritonitis, arthritis and pleuritis. In most cases, there is a favorable response to colchicine prophylaxis (1). FMF is related to several other inflammatory diseases and vasculitides including inflammatory bowel disease, polyarteritis nodosa, Henoch-Schönlein purpura, protracted febrile myalgia, and Behçet’s disease (2). About 20% of colchicine treated FMF patients display colchicine intolerance, manifested by 1-10 soft or watery stools/day. This condition is at times unresponsive to dose adjustments in colchicine and/or anti-diarrhea medications (3). Failure to respond to colchicine, which is marked by ≥1 febrile attack per month despite a maximal colchicine dosage (≥2 mg/day), occurs in 5-10% of patients. The reasons for colchicine treatment failure are unknown.

Celiac sprue (CS) is a genetic autoimmune disorder resulting from sensitivity to gluten. In some populations its prevalence is estimated to be between 1–1.5% (4). CS shares some of the clinical features (abdominal pain, diarrhea, arthralgia, arthritis) of FMF, and tends to be commonly associated with other inflammatory and autoimmune diseases (5). Anti-endomysial antibodies (AEA) of the IgA type are highly specific and sensitive markers of the disease (6).

We speculated, based on the above analogies, on a possible association between FMF and CS. This association could explain the colchicine intolerance of some FMF patients in whom borderline CS intestinal changes become evident only from additional noxios stimulus inflicted by colchicine. In addition, we believed that clinically silent CS might nevertheless cause colchicine absorption failure, leading to colchicine “unresponsiveness”. Finally, we hypothesized that diarrhea during resolution of abdominal FMF attacks may also be partially related to the possible FMF-CS association occurring in some patients.

We therefore collected and studied serum samples for the presence of AEA in the following groups: 20 patients with FMF and colchicine-related diarrhea; 10 patients unresponsive to colchicine; and 20 FMF patients with no history of diarrhea during attacks or resulting from colchicine therapy. Serum collected from 20 healthy individuals and 20 CS patients was used to determine the normal and pathological levels. All patients were of Jewish ancestry. AEA was studied using a kit (ImmuGlo™ Anti-Endomysial Antibody (EMA) Test System, IMMCO Diagnostic, Inc. Buffalo, NY, USA) according to the manufacturer’s instructions (an indirect immunofluorescence antibody test for both IgA and IgG).

None of the patients from the different subgroups studied had elevated titers of AEA (<1/2.5), compared to a mean positive titer (1/100) in the CS patients. These results do not support an association between FMF and CS, and do not support CS as the culprit of diarrhea in FMF attacks or FMF colchicine intolerance. Furthermore, there was no indication that CS is the underlying mechanism of FMF colchicine treatment failure. A larger study is desirable to confirm these findings.

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References