

e.g. iron-deficiency. However, the regulation of plasma EPO is complex and multifactorial, and the degrees of anemia, liver dysfunction, impaired pulmonary function and cytokine alterations are the major factors in regulating plasma erythropoietin in patients with chronic liver diseases.

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• LETTERS@WJGNET.COM •

Comment on "Eosinophilic gastroenteritis: Clinical experience with 15 patients"

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To the Editor:

I recently read the paper by Chen *et al.*^[1] published in your Journal. The paper shows that there have been a few cases where medications have caused eosinophilia. Clozapine is an antipsychotic medication that can cause eosinophilia. It is pointed out in your paper "The diagnostic criteria included . . . 5), exclusion of intestinal lymphoma, Crohn's disease or other tumors." Table 2 shows symptoms associated with eosinophilic gastroenteritis, which are very like those in Crohn's disease.

Miss Z, a 29 years old female received a diagnosis of Crohn's disease five years ago. It seemed to be the more aggressive fistulizing form of Crohn's disease. The inflammation seemed

to be located in her colon. She had several perianal abscesses. Miss Z took the antipsychotic, clozapine. Clozapine can cause constipation, diarrhea^[2-7], nausea^[6,8], vomiting^[3,6,8], allergic reactions, *etc.* Clozapine has also been linked with colitis^[5,14], gastrointestinal symptoms^[7], hepatotoxicity^[12], eosinophilia^[5,7,9], neutropenia^[5,6], colon perforation^[13], necrotizing colitis^[13], perianal abscesses^[9], and increased levels of TNF-alpha^[10], *etc.*

When Miss Z was growing up, she had no prodromal symptoms that, even with the benefit of hindsight one might be able to say, this was the beginning of Crohn's disease. The sickness and diarrhea started 32 d after the clozapine was titrated to its full dose of 300 mg/d in November 1998.

Tumor necrosis factor α (TNF α) is a proinflammatory cytokine that has an important role in the pathogenesis of Crohn's disease. Infliximab-a chimeric anti-TNF α monoclonal antibody binds to TNF α with high affinity, thereby neutralising its biological activity. Pollmacher *et al.*^[10], found that clozapine significantly increased the plasma levels of TNF-alpha.

Miss Z responded very well to infliximab. Steroids (prednisolone) had little effect on the symptoms. Stopping clozapine was not an option unless we were to be reasonably sure that it was responsible for causing or exacerbating the inflammation in Miss Z's colon.

I am particularly interested in the effect of clozapine. If it were to cause eosinophilia it might have effects on the colon. I wondered if the symptoms of nausea, vomiting, *etc.*, might persist all the time when clozapine was taken.

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