Asymptomatic eosinophilic colitis in a patient with previous allogeneic bone marrow transplantation for chronic myeloid leukaemia : letter to editor.

A. Shindano*, A. Geubel*, C. Fervaille, K. Azzouzi

Dept. of Gastroenterology* and Pathology**, St Luc University Hospital, Université Catholique de Louvain, 1200 Brussels, Belgium.

To the Editor,

We report the case of a 63-year-old woman with a previous history of allogeneic bone marrow transplantation (BMT) for chronic myeloid leukaemia (CML) at the age of 45. The diagnosis of CML was been made in 1988, one year before BMT. At that time, she received a course of chemotherapy prior to bone marrow transplantation from her HLA-compatible sister. Bone marrow grafting was performed with a traditional regimen of chemotherapy, total body irradiation and graft versus host disease (GVHD) prophylaxis. Three years later, CML relapsed and remission was again obtained after a short course of Hydroxyurea, interferon and transfusion of white blood cells from the bone marrow donor.

Up to now she has remained in remission. In 2006, she was referred to our unit for a 3-year surveillance colonoscopy after the resection of hyperplastic polyps of the right colon. Biopsies performed at that time did not show any inflammatory features at the colon mucosa. At the time of examination, her treatment included omeprazole 20 mg/day for dyspepsia, allopurinol 300 mg/day and colchicin 1 mg/day for familial hyperuricemia, lisinopril 20 mg/day for high blood pressure, glucosamin sulfate 1 caps/day as treatment of arthrosis. She had no diarrhoea or history of allergy or food intolerance. Physical examination was unremarkable.

Gastroscopic examination performed at the time of colonoscopy for epigastric discomfort did not show any abnormality. Colonoscopy showed a normal mucosal appearance and only small mucosal elevations were resected. At histological examination, gastric and duodenal biopsies were unremarkable while colonic biopsies showed an inflammatory mucosa together with strong eosinophilic infiltration present in both resected mucosa and in normally appearing areas (Fig. 1).

At biological examination, there was no peripheral eosinophilia (WBC: 12,310/L with 8700 neutrophils and total eosinophil count of 230/dL). Stool examination was negative for parasites.

The patient remained asymptomatic. A follow-up rectosigmoidoscopy was repeated after one year and histological examination was similar showing the persistence of a dense eosinophilic infiltration of the colonic mucosa.

Fig. 1. — Histology of the colonic biopsy showing inflammation of the lamina propria infiltrated by lymphocytes, plasma cells and numerous eosinophils (arrows). There are only rare eosinophils within the crypt and surface epithelium is slightly

These findings led to the diagnosis of asymptomatic eosinophilic colitis appearing on the long term after bone marrow transplantation for chronic myeloid leukaemia.

regenerative (hematoxylin and eosin staining, $400 \times$).

A single case of eosinophilic colitis appearing one month after allogeneic bone marrow transplantation for acute myeloid leukaemia has been reported by Ashida et al (1). Their patient developed a watery diarrhea one month after the BMT. No cause was found and GVHD was excluded on the basis of colonic biopsies examination. She exhibited a good response to steroid therapy (prednisolone 30 mg/day).

In our case, eosinophilic colitis might represent a minor form of eosinophilic gastroenteritis which remains a rare and poorly understood disease (2,3). It usually affects the stomach and small intestine, but large bowel



Correspondence to : Kassem Azzouzi, MD. Cliniques Universitaires Saint-Luc, Avenue Hippocrate 10, 1200 Brussels, Belgium E-mail: kassem.azzouzi@uclouvain.be.

Submission date : 01/12/2008 Acceptance date : 05/12/2008

involvement has also been described (1,4,5). The histological characterization of the condition includes an eosinophilic infiltration of one or more areas of the gastrointestinal tract. Its definition also includes peripheral blood eosinophilia in the absence of any other known origin, including parasitic infestation (5,6,7).

However, peripheral blood eosinophilia is not mandatory since it has been reported in only 80 % of the cases. Eosinophilic colitis may also be idiopathic or caused by food allergy, drugs (i.e. carbamazepine, rifampicine), leukaemia, or systemic vasculitis (1,2,8,9).

Clinical features are often characterized by gastrointestinal symptoms, i.e abdominal pain, diarrhoea, depending on the gastrointestinal area affected and/or the depth of infiltration.

Another possibility is that the condition of our patient represent a minor form of GVHD with as the sole feature an eosinophilic excess in the mucosa in the absence of symptoms. Indeed, it has been reported that some patients could develop eosinophilia after BMT generally in relationship with chronic GVHD (10).

In conclusion, we report the case of a 63-year-old woman with an asymptomatic eosinophilic colitis occurring in the long term after a successful treatment of CML by BMT. The diagnosis was based on histological features in the absence of any clinical symptoms or other features of allergy or blood eosinophilia. In addition, there was no history of allergy, parasitic infestation, recurrence of leukaemia or potential responsible drug. Clinicians should be aware of this histological picture which might apparently occur any time after a bone marrow transplantation and especially in presence of gastrointestinal symptoms.

References

- ASHIDA T., SHIMADA T., KAWANISHI K., MIYATAKE J., KANAMARU A. Eosinophilic colitis in a patient with acute myeloid leukemia after allogeneic bone marrow transplantation. *Int. J. Hematol.*, 2003, 78: 76-8.
- TALLEY N.J., SHORTER R.G., PHILLIPS S.F., ZINSMEISTER A.R. Eosinophilic gastroenteritis: a clinicopathologic study of patients with disease of the mucosa, muscle layer, and subserosal tissues. *Gut*, 1990, 31: 54-8.
- ROTHENBERG M.E. Eosinophilic gastrointestinal disorders (EGID). J. Allergy Clin. Immunol., 2004, 113 : 11-28.
- MINCIU O., WEGMANN D., GEBBERS J.O. Eosinophilic colitis: an unusual cause of acute abdomen. Case report and literature. Schweiz Med. Wochenschr., 1992, 122 : 1402-8.
- MACEDO T., MACCARTY R.L. Eosinophilic ileocolitis secondary to Enterobius vermicularis: case report. *Abdom. Imaging*, 2000, 25: 530-2.
- DE JONG M.D., BAAN J., LOMMERSE E., VAN GOOL T. Severe diarrhea and eosinophilic colitis attributed to pinworms. *Ned. Tijdschr. Geneeskd.*, 2003, 147: 813-5.
- KARMACHARYA R., MINO M., PIRL W.F. Clozapine-induced eosinophilic colitis. Am. J. Psychiatry, 2005, 162 : 1386-7.
- LANGE P., OUN H., FULLER S., TURNEY J.H. Eosinophilic colitis due to rifampicin. *Lancet*, 1994, 344: 1296-7.
- KALAYCIOGLU M.E., BOLWELL B.J. Eosinophilia after allogeneic bone marrow transplantation using the busulfan and cyclophosphamide preparative regimen. *Bone Marrow Transplant*, 1994, 14: 113-5.
- DANESHPOUY M., SOCIE G., LEMANN M., RIVET J., GLUCKMAN E., JANIN A. Activated eosinophils in upper gastrointestinal tract of patients with graft-versus-host disease. *Blood*, 2002, **99** : 3033-40.