Reminder of important clinical lesson

Gastric ulcers and swollen kidneys: a rare diagnosis complicating Crohn's disease

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Summary

We present a case of a 48-year-old woman with Crohn's colitis admitted with abdominal pain and fever. She had been started on azathioprine 6 months before presentation and had received three doses of infliximab.

Abdominal CT scan revealed a liver abscess. Azathioprine was stopped and antibiotics started. She was subsequently discharged with follow-up imaging planned.

She presented 3 weeks later with haematemesis. Gastroscopy revealed multiple gastric ulcers. A repeat CT scan showed bilateral renal masses and a renal biopsy was arranged. Gastric and renal biopsies were consistent with B cell lymphoma. Chemotherapy was started and resulted in improvement in CT scan findings as well as ulcer healing.

BACKGROUND

Crohn's disease is commonly encountered by gastroenterologists and immunosuppressants such as azathioprine and 6-mercaptopurine are widely used. The increased risk of lymphoma in Crohn's disease has been debated, particularly with regard to the role of confounding factors such as disease severity and immunosuppressants. This case highlights the need to consider the diagnosis of lymphoma in patients with Crohn's disease, particularly in the setting of unusual or multi-organ involvement.

CASE PRESENTATION

A 48-year-old woman with an 8-year history of Crohn's colitis was admitted to hospital with abdominal pain and fever. Her disease had been well-controlled with 5-aminosalicylates until the preceding year when she had required two courses of corticosteroids. Azathioprine (2.5 mg/kg) was started 6 months before admission, but she had remained steroid-dependent and received three doses (5 mg/kg) of infliximab to good effect in that steroid cessation was achieved; the last dose of infliximab was given 3 weeks before her admission.

INVESTIGATIONS

Abdominal CT scan on admission demonstrated colonic wall thickening and a 4.5 cm liver abscess (figure 1). Azathioprine was stopped and she was treated with oral ciprofloxacin, metronidazole and amoxicillin. After symptomatic improvement, she was discharged on the above antibiotics with follow-up hepatic imaging planned.

Three weeks later she re-presented as an emergency with haematemesis. Gastroscopy revealed multiple ulcers (figure 2A), which were biopsied (figure 2B,C). A repeat abdominal CT was obtained in order to confirm adequate treatment of the hepatic abscess. This revealed abscess resolution but also novel, unexpected, findings of bilateral renal masses (figure 3).

Histological assessment of gastric biopsies (figure 2B) revealed a large cell infiltrate; these findings were consistent with lymphoma. Subsequent staining of gastric (figure 2C) and renal biopsies with anti-CD20 antibody confirmed large B cell non-Hodgkin's lymphoma.

OUTCOME AND FOLLOW-UP

Chemotherapy (rituximab–cyclophosphamide–doxorubicin–vincristine–prednisolone¹) was started and, 4 months later, CT scan demonstrated reduction of renal size, while gastroscopy revealed complete ulcer healing.

DISCUSSION

The increased risk of lymphoma in Crohn's disease has been debated; in particular, the role of confounding factors, such as underlying disease severity and immunosuppressant or biological treatment, remains unclear.^{2–3} A meta-analysis suggested that patients receiving purine analogues are at fourfold increased risk of developing lymphoma.⁴ A recent prospective cohort study compared the incidence rates of lymphoproliferative disorders in patients with inflammatory bowel diseases (IBDs) treated and not treated with thiopurines; this showed a fivefold increase in the risk

Figure 1 CT scan demonstrating a 4.5 cm liver abscess.

Figure 2 Gastroscopy showing a number of gastric ulcers (A). H&E staining of biopsy specimens revealed a large cell infiltrate consistent with lymphoma (B) and subsequent staining with anti-CD20 antibody confirmed large B cell non-Hodgkin's lymphoma (C).

Figure 3 Repeat CT scan demonstrates resolution of the hepatic abscess and a new finding of bilateral renal masses.

of lymphoproliferative disorder in patients who had received azathioprine or 6-mercaptopurine. It is notable that lymphoproliferative disorders can be seen early after initiation of these treatments,⁵ as occurred in this patient. Epstein–Barr virus may play an aetiological role in thiopurine-associated lymphomas in IBD,² although further analysis of histological specimens from this patient failed to demonstrate virus infection.

While it is difficult to disentangle exact causative factors in the aetiology of lymphoproliferative disorders in IBD, our case demonstrates that lymphoma should be considered as a potentially unifying diagnosis of multi-organ pathology in patients with Crohn's disease.

Learning points

- ▶ The management of Crohn's disease can be challenging and often requires the use of immunosuppressants.
- ▶ A meta-analysis and a prospective cohort study have suggested that patients receiving purine analogues are at increased risk of developing lymphoma in IBD. Epstein–Barr virus may play an aetiological role in thiopurine-associated lymphomas in IBD.
- ▶ Lymphoma should be considered as a potentially unifying diagnosis of multi-organ pathology in patients with Crohn's disease.

Competing interests None.

Patient consent Obtained.

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