Colonic NK/T-cell lymphoma mimicking Crohn's disease

Fig. 1 Computed tomographic scan of the abdomen showed asymmetric bowel wall thickening at the ascending colon, the ileocecal valve (*), and the terminal ileum (arrow).

A 29-year-old man presented at another institution with bloody diarrhea. Colonoscopy showed multiple discrete ulcers in the ascending colon. Histological study revealed moderate chronic inflammation with negative stain for acid-fast bacilli. A computed tomographic scan showed asymmetrical thickening of the ascending colonic wall with no lymphadenopathy (● Fig. 1). After a month's trial of anti-tuberculosis medication, the diarrhea still persisted. Subsequent colonoscopy showed more extensive colonic ulcers from the sigmoid to the ascending colon (● Fig. 2). The second histological study

revealed more severe inflammation. At this point, Crohn's disease was suspected, and the patient's diarrhea partially improved after prednisolone treatment (40 mg/day). However, a month later, he developed sudden abdominal pain. He underwent an emergency right hemicolectomy as treatment for spontaneous ileal perforation (● Fig. 3). Histological study demonstrated more severe ulcers with granuloma and reactive nodes. The patient was kept on prednisolone (40 mg/day) and azathioprine (2 mg/kg per day). Two weeks later, the patient was referred to our hospital with more bloody diar-

rhea, fever, weight loss, and new-onset epistaxis. Physical examination showed a right nasopharyngeal mass. Serum LDH level was elevated at 552 U/L. Histological study of a specimen from the nasopharyngeal mass demonstrated small lymphoid cells with immunohistochemical staining reported as positive for CD3, CD56, and EBER, and negative for CD20 (● Fig. 4). Similar to the nasopharyngeal mass, additional staining of the previous colonic specimen found a positive result for CD3, CD56, and EBER in a small number of small lymphoid cells (● Fig. 5). Colonic NK/T-cell lymphoma was now diagnosed. Sadly, the patient died from an invasive fungal infection before chemotherapy could be given.

Colonic NK/T-cell lymphoma is a rare and aggressive disease [1]. Due to the non-specific clinical and endoscopic findings, its diagnosis is very difficult. Despite clinical signs suggesting lymphoma, histological analysis without special staining did not allow a confirmed diagnosis in some cases [2]. One fifth of patients with colonic NK/T-cell lymphoma were misdiagnosed as having Crohn's disease and intestinal tuberculosis [3]. Severe ileocolonic ulcers with spontaneous perforation should prompt consideration of the possibility of a non-Crohn diagnosis such as NK/T-cell lymphoma.

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Fig. 2 Colonoscopy showed: **a** multiple discrete deep round ulcers at the sigmoid colon; **b, c** large well-defined colonic ulcers with intervening normal colonic mucosa at the transverse colon and the ascending colon.

Fig. 3 Colonic specimen shows multiple large ulcers with evidence of recent hemorrhage.

Fig. 4 **a** Histological section of the nasopharyngeal specimen shows a mass containing small lymphoproliferative cells. **b** Immunohistochemical study was positive for CD3, CD56, and EBER and negative for CD20.

Fig. 5 Immunohistochemical staining of the colonic specimen was positive for EBER cells among other inflammatory cells that had infiltrated the lamina propria.

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