A Case of Malignant Lymphoma Accompanied with Arterial Bleeding from the Gastric Lesion

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We experienced a case of malignant lymphoma with gastric and ileo-caecal lesions. The case was a 80 year-old Japanese female with a chief complaint of anorexia. The patient had gross hematemesis on the 4th day of admission. By emergency gastroendoscopy, multiple small gastric ulcers which have sharp marginal prominences were observed. Pulsating arterial bleeding was observed and we successfully achieved hemostasis by topical injection of pure ethanol under gastroendoscopy. Biopsy specimen of that lesion showed it was malignant lymphoma.

Key words: Hemostasis, Topical injection of pure ethanol

Frequency of bleeding from ulcers of gastric lymphoma is not low (1–3), but a case in which arterial bleeding was observed under gastroendoscopy has never been reported.

We experienced a case of malignant lymphoma and observed arterial bleeding from a gastric lesion. There have been many reports of topical injection of pure ethanol under gastroendoscopy towards bleeding from benign gastric ulcers (4–6). We found topical pure ethanol injection was useful treatment for bleeding from a gastric lesion of malignant lymphoma.

CASE REPORT

An eighty-year-old Japanese woman was admitted to our hospital with a chief complaint of anorexia in 1987. On admission, she was slightly anemic and the mass measuring about 4 × 4 cm in diameter was palpable in the right lower abdomen. Superficial lymph nodes were not palpable.

Laboratory data revealed slight anemia but a total and a differential count of white blood cells were normal. Liver function was normal except an elevation of LDH. Chest X-ray did not show any abnormalities.

The patient had gross hematemesis at midnight of the 4th day of admission and emergency gastroendoscopy was done. Multiple small ulcers were observed in the greater curvature from the upper body to the antrum of the stomach. From one ulcer of the upper body, pulsating arterial bleeding was observed (Fig. 1). We achieved hemostasis by topical injection of pure ethanol to the surrounding tissue close to the bleeding vessel at the bottom of the ulcer. Four days later the patient had the 2nd gastroendoscopy but no bleeding was observed (Fig. 2). Biopsy specimen of that lesion showed that it was malignant lymphoma, diffuse lymphoma, medium-sized cell type according to LSG classification (Fig. 3).

The mass was palpable in the right lower abdomen and ultrasonography (USG) showed pseudo-kidney sign of the caecum (Fig. 4). Computed tomography (CT) also revealed remarkable wall...
thickening of the caecum (Fig. 5). But no abnormalities was found in the liver and the spleen, and swelling of para-aortic lymph nodes was not observed by USG and CT.

It is not rare in malignant lymphoma to have multiple lesions and ileo-caecal region is the common place of malignant lymphoma. Therefore the caecal tumor is suspected to be a lymphoid tumor.

After the 2nd gastroendoscopy, the patient complained of abdominal fullness, upper abdominal pain, nausea and vomiting. Plain abdominal X-ray showed gaseous dilatation and fluid level of the small intestine (Fig. 6). We treated the patient with transfusion, antibiotics, stimulants of peristaltic movement and an indwelling ileus tube. But conservative treatment was not effective and general condition went worse. Obstructive symptoms of the

![Fig. 1. The emergency gastroendoscopy. Multiple small ulcers were observed in the greater curvature of the stomach. From one ulcer of the upper body, pulsating arterial bleeding was observed.](image1)

![Fig. 2. The 2nd gastroendoscopy. Each ulcer has a sharp marginal prominence whose mucosa is smooth and luster (a). No bleeding was observed in the ulcer which had topical injection under the emergency gastroendoscopy (b).](image2)

![Fig. 3. Biopsy specimen of the stomach shows diffuse proliferation of lymphoid tumor cells. Each tumor cell has little cytoplasm and has a nucleus whose chromatin is coarse. It is diagnosed as diffuse lymphoma, medium-sized cell type, according to LSG classification. (H.E. stain, ×400)](image3)

![Fig. 4. Ultrasonography reveals remarkable wall thickening of the caecum. (pseudo-kidney sign)](image4)

![Fig. 5. CT shows remarkable wall thickening of the caecum.](image5)
Fig. 6. Plain abdominal X-ray showed gaseous dilatation and fluid level of the small intestine.

Fig. 7. Gross appearance of the resected tumor. The tumor is elastic, measuring 4 × 5 cm in size and involves the caecum and the end of the ileum. The lumen is stenotic and the mucosa is granular and erosive but no ulcer is seen there.

Fig. 8. Microscopic examination of the resected tumor. The tumor is composed of medium-sized lymphoid cells. (a, H. E. stain, ×10) High power view. (b, H. E. stain, ×400) Diffuse lymphoma, medium-sized cell type. (LSG classification)

It was 4 × 5 cm in size (Fig. 7). Histologically it was diagnosed as diffuse lymphoma, medium-sized cell type (Fig. 8).

After the operation, anastomosis of the intestine revealed leakage and the patient complained of heart failure. She died on the 25th day of the operation. CHOP therapy was done once but we could not evaluate the effectiveness of chemotherapy because gastroendoscopy could not be done again after the operation.

**DISCUSSION**

Malignant lymphoma is classified to nodal and extra nodal lymphoma. In the latter, primary gastrointestinal lymphoma is most frequent except Waldeyer’s ring (7, 8).

Our case was an emergent case and some details of the disease were unclear. But it was suspected to be a primary gastrointestinal lymphoma, because the lesions were localized to the stomach and the ileo-
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caecal region, a total and a differential count of peripheral white blood cells were normal, superficial lymph nodes were not palpable, and para-aortic lymph nodes were not swollen and no abnormalities was detected in the liver and the spleen by USG and CT.

In gastrointestinal malignant lymphoma, clinical symptoms are not specific. Hematemesis due to bleeding from gastric lesions is not rare and its frequency was reported to be 15% by Contrarey et al (1), 17% by Brady et al (2), and 17% by Naqvi et al (3). But there has been no case report in which arterial bleeding was observed under gastroscopy.

Topical injection of pure ethanol towards bleeding of benign gastric ulcers was first reported by Asaki et al (4) in 1981. The mechanism of hemostasis is thought to be solidification, that is vascular shrink by the direct action of ethanol and the degeneration of the vascular endothelial cells being followed by formation of blood clot (9). The rate of effectiveness is reported to be 86.4~95% (5, 6) in benign ulcers.

The surrounding tissue of the bleeding vessel is granulation and normal submucosal tissue in the benign ulcer, and is thought to be proliferated lymphoid tumor cells in malignant lymphoma. We could successfully achieve hemostasis by this method in gastric lymphoma too. Re-bleeding was not observed.

In gastric lymphoma, when the lesion is localized to the stomach, the first choice of the treatment is gastrectomy because it could be radical treatment (10). On the other hand, morphological change of the gastric lesion could be the index of the effectiveness of chemotherapy and the prognosis (11). Therefore it is better not to resect the stomach in a case which a radical operation is not expected. But even in these cases, some patients have gastrectomy because of gross bleeding of the gastric lesions.

In our case we could achieve hemostasis by topical injection of pure ethanol and treated the patient without gastrectomy. We could not evaluate the effectiveness of chemotherapy because general condition of the patient was poor and she could not have gastroscopy after the operation, but she had no clinical signs of re-bleeding from the gastric lesion in her clinical course after the operation.

In conclusion, we could observe arterial bleeding from the gastric lesion of malignant lymphoma and achieved hemostasis by topical injection of pure ethanol under gastroscopy.

REFERENCES