Upper gastrointestinal and intra-abdominal hemorrhage secondary to diffuse large B-cell gastric lymphoma

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Invasion of a primary gastric lymphoma into the spleen, resulting in massive upper gastrointestinal and free intra-abdominal hemorrhage has never been described to our knowledge. We describe a case of this rare occurrence.

Case report

A 66-year-old woman presented to the emergency department complaining of shortness of breath and anorexia for the past 3 months. Her medical history was significant for morbid obesity, type 2 diabetes, hypertension and nephrolithiasis. Initial physical examination revealed that air entry to the left chest was markedly decreased and that her abdomen — although obese — was soft and nontender, with no evidence of peritonitis. A chest film demonstrated a significant left-sided pleural effusion.

Computed tomography (CT) of the thorax, abdomen and pelvis was done. Immediately afterward, the patient began vomiting bright red blood. In the resuscitation room, she continued to have significant hematemesis. This necessitated endotracheal intubation and central venous access. Emergent upper endoscopy was required. The endoscopist could not visualize any active bleeding because of a large amount of clot and bright red blood in the stomach and first portion of the duodenum. The patient became hemodynamically unstable, necessitating an emergency exploratory laparotomy.

On entry into the peritoneal cavity, we found an unexpectedly large volume of bright red blood. All 4 abdominal quadrants were immediately packed with sponges. The bleeding appeared to emanate from the left upper quadrant, and we suspected injury to the spleen from the upper endoscopy. As we mobilized the spleen, the nasogastric tube was pulled up into the abdomen (Fig. 1). Inspection of the stomach revealed a large hole in the proximal greater curvature that looked like a chronic ulcer. The posterior aspect was intimately fused with the spleen, which was bleeding. The ulcer edges were friable, heaped up and nodular, suggesting invasive malignant

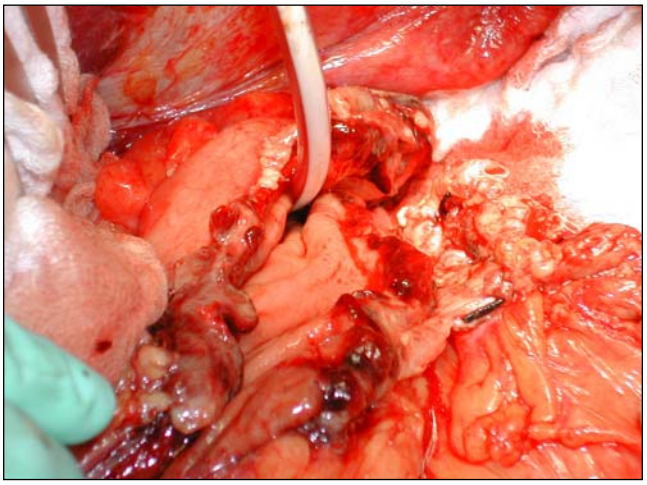

FIG. 1. Nasogastric tube arising from the proximal portion of the stomach. Note the ulcerated edges of the stomach.

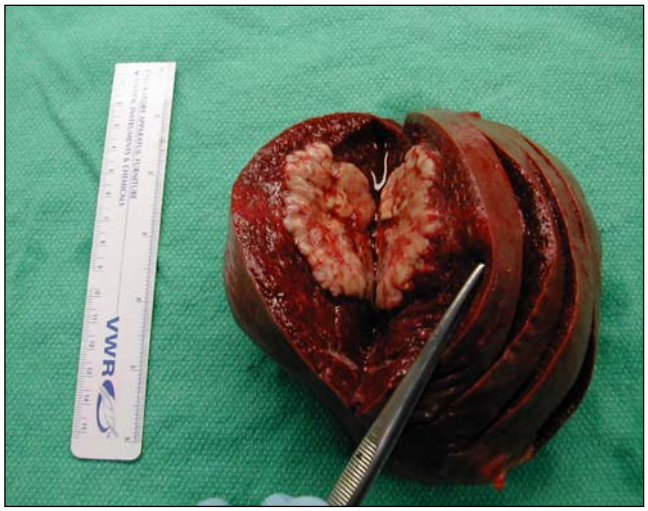

FIG. 2. Resected spleen showing invasion by a lymphoma.

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disease, which was confirmed with intraoperative frozen-section examination. Tumour nodules were also present on the undersurface of the left diaphragm and distal esophagus and were invading the tail of the pancreas.

We controlled the acute hemorrhage with splenectomy and ligation of bleeding vessels. We then resected the tail of the pancreas and performed a proximal gastrectomy with primary hand-sewn anastomosis of the gastric remnant to the distal esophagus. A jejunostomy feeding tube was also placed. The patient was given more than 12 units of packed red blood cells. Pathological examination of the resected specimen revealed a primary gastric diffuse large B-cell lymphoma (Fig. 2).

Discussion

The stomach is the most common site for extranodal non-Hodgkin's lymphoma, representing 1%–7% of all gastric cancers.[1] Chronic *Helicobacter pylori* infection is strongly associated with the development of primary gastric B-cell lymphoma of mucosa-associated lymphoid tissue type.[2]

Management of a patient who has signs and symptoms of upper gastrointestinal and intra-abdominal bleeding requires immediate focus on the life-threatening hemorrhage. An airway must be urgently secured, adequate ventilation and respiration established and hemodynamic support provided. Massive bleeding requires emergent laparotomy and control of the bleeding source. The oncologic aspect of the operation can be dealt with only after all life-threatening issues have been managed.

Competing interests: None declared.

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