A Case of Gastric Intramural Hematoma Caused by Anisakis Infection

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Received 27 August 2019; Accepted 24 December 2019; Published 27 June 2020

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A sixty-year-old lady admitted complaining of epigastric pain and hematemesis. She ate sliced raw fish one day ago. She had hypertension. There was no noteworthy fact in her social and family history. She did not take any antiplatelet drug and anticoagulation drug. On her initial visit, blood pressure was 105/91 mmHg, pulse rate was 72 beats per minute, respiratory rate was 24 breaths per minute, and body temperature was 37.2°C. In abdominal physical examination, there was pain and tenderness in the epigastric area. But there was no rebound tenderness and muscle rigidity. The bowel sound was normal. In laboratory test, the white blood cell count was 14,900/mm³, hemoglobin was 10 g/dL, and platelet count was 199,000/mm³. The result of coagulation test was PT 1.13 (INR) and aPTT 24.4 sec. The result of blood chemistry was total protein 5.9 g/dL, albumin 3.5 g/dL, AST 27 IU/L, ALT 11 IU/L, ALP 118 IU/L, total bilirubin 0.6 mg/dL, BUN 21.2 mg/dL, creatinine 0.8 mg/dL, Na 142 mEq/L, K 3.8 mEq/L, Cl 106 mmol/L, CRP 0.08 mg/dL, and blood sugar 145 mg/dL.

Abdominal computed tomography scan showed about 8 × 3 cm nonenhancing mass in the stomach antrum and lower body. The Hounsfield unit of mass was 50–60 units (Figure 1(a)). It suggested submucosal hematoma in stomach. Emergent esophagogastroduodenoscopy was performed. A pool of blood was on the greater curvature side of body in the stomach. Greater than 5 cm-sized mass was noted on the anterior wall of body and antrum. The mass was round, dark...
Figure 1: (a) Abdominal computed tomography scan showing about 8 × 3 cm nonenhancing mass (50–60 Hounsfield unit) in the stomach antrum and lower body, suggesting submucosal hematoma. (b) Gastroscopy showing ruptured intramural hematoma on the anterior wall of antrum and low body. (c) Gastroscopy showing ruptured mucosa and hematoma in inside the mucosa wall.

Figure 2: (a) Significant decreased size of hematoma in the stomach antrum and lower body compared with previous computed tomography. No visible active bleeding in stomach is observed. (b) Gastroscopy showing active ulcer on the anterior wall of the antrum and low body.

Figure 3: (a) Gastroscopy showing whitish thread-like worm on gastroesophageal junction. (b) Gastroscopic finding: the whitish thread-like worm is being removed by using a biopsy forcep. (c) Gross finding showing 2 cm whitish thread-like worm, identified as anisakis larva.
Intramural hematoma of the gastrointestinal tract is a rare disease. It can result from recurrent vomiting, endoscopic therapy, peptic ulcer disease, and trauma. It is associated with coagulopathy and anticoagulation therapy. The case of spontaneous duodenal intramural hematoma was reported in Henoch–Schönlein purpura. The case of biopsy-induced spontaneous duodenal intramural hematoma was reported with coagulopathy and anticoagulation therapy. The case of therapy, peptic ulcer disease, and trauma. It is associated with liver cirrhosis was reported [5]. Rohrer et al. reported four cases of duodenal hematoma and one case of gastric hematoma in 227 bleeding peptic ulcer [3].

In summary, we reported a case of gastric intramural hematoma caused by anisakis infection. Gastric intramural hematoma may be one of the symptoms associated with anisakis infection.

3. Discussion

Intramural hematoma of the gastrointestinal tract is a rare disease. It can result from recurrent vomiting, endoscopic therapy, peptic ulcer disease, and trauma. It is associated with coagulopathy and anticoagulation therapy. The case of spontaneous duodenal intramural hematoma was reported in Henoch–Schönlein purpura. The case of biopsy-induced spontaneous duodenal intramural hematoma was reported. The case of epinephrine injection-induced spontaneous duodenal intramural hematoma in liver cirrhosis was reported [5]. Rohrer et al. reported four cases of duodenal hematoma and one case of gastric hematoma in 227 bleeding peptic ulcer [3].

Anisakiasis is becoming clinical and epidemiological problem owing to the changes in diet style. Anisakis is a genus of parasitic nematodes that have lifecycles involving fish and marine mammals. Anisakiasis can be occurred due to ingestion of raw fish or undercooked seafood. The rates of anisakis infection are 68% in the stomach and 30% in the small intestine. Symptoms of anisakiasis are sudden epigastric pain, nausea, and vomiting. From two to ten hours after eating raw fish and seafood, the symptoms develop.

Intramural esophagogastroduodenal hematoma in hemophilia caused by tuberculosis infection was reported [6]. However, a report of gastric intramural hematoma caused by anisakis infection has not been published. To our knowledge, this case is the first English-written report of gastric intramural hematoma caused by anisakis infection. Anisakis larva goes through mucosa and muscle and can injure submucosal vessels. Bleeding from injured submucosal vessels can lead to intramural hematoma.

In this case, the location of anisakis and intramural hematoma was different. Intramural hematoma was at the anterior wall of body and antrum. But anisakis larva was at the gastroesophageal junction. Anisakis larva can move around inside the stomach. Therefore, the location of anisakis and intramural hematoma may be different.