A very rare cause of the intra-abdominal bleeding

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QUESTION

What is the cause of the intraabdominal bleeding in this 70-year-old male patient?

A 70-year-old male patient presented with sudden-onset abdominal pain. On conducting a physical examination, hypovolemic shock and abdominal tenderness were detected. Anemia, mild leukocytosis, and C-reactive protein level elevation were detected in his laboratory test results. Contrast-enhanced abdominal computed tomography (CT) was performed for evaluating the patient. What condition is being shown on CT scan (Figure 1, 2) and what could be the cause?

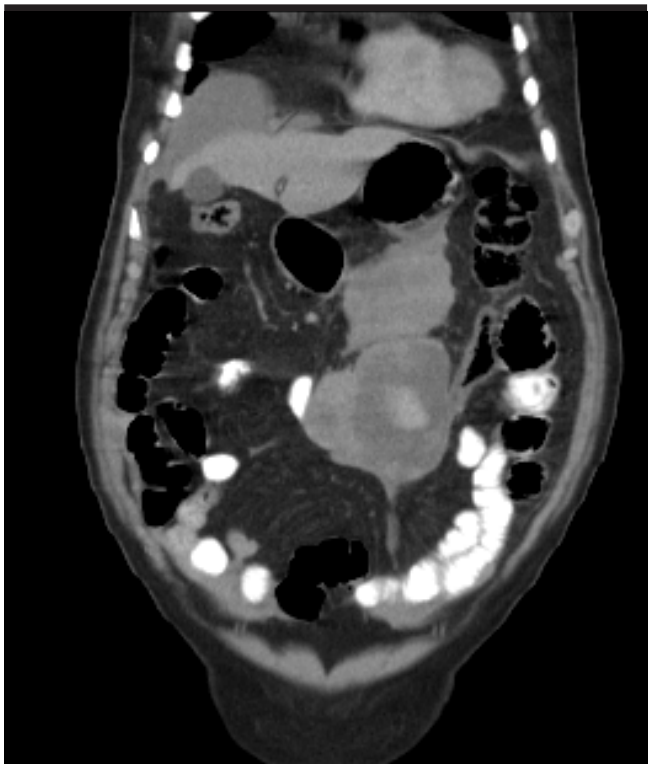

Figure 1. Coronal CT view of the intraabdominal spontaneous perforation of the primary leiomyosarcoma originated from transverse colon.

Figure 2. Sagittal CT view of the intraabdominal spontaneous perforation of the primary leiomyosarcoma originated from transverse colon.

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ANSWER

Intra-abdominal spontaneous perforation of the primary colonic leiomyosarcoma

Herein we described the case of a 70-year-old male patient with intraabdominal spontaneous perforation of a primary leiomyosarcoma that originated from the transverse colon. The condition was diagnosed on the basis of the findings of contrast-enhanced abdominal CT and postoperative histopathological examination of the resected specimen. The contrast-enhanced abdominal CT revealed an intraabdominal mass approximately 10 cm in diameter that was thought to have been originated from the transverse colon (Figures 1 and 2). Furthermore, hemorrhagic areas were observed around the intraabdominal mass. Surgery was performed; on abdominal exploration, a spontaneously ruptured mass approximately 10 cm in diameter that contained hemorrhagic areas was detected; it originated from the transverse colon and extended to the omental bursa. A segmental colonic resection involving the ruptured mass was performed. A ruptured primary colonic leiomyosarcoma was detected on histopathological examination.

Sarcomas are malignant tumors arising from mesenchymal cells. Leiomyosarcoma is an aggressive soft tissue sarcoma usually originating from smooth muscle cells. It has a typical histopathological appearance of spindle-shaped tumoral cells grouped in bundles. Gastrointestinal (GI) tract, uterine, and soft tissue are the areas most affected by leiomyosarcoma, but it can occur anywhere in the body. Primary GI sarcomas are a very rare entity, accounting for 1%–2% of GI malignancies. The stomach is the most common site of the GI primary leiomyosarcomas, followed by the small intestine, colon, and rectum (1). Primary leiomyosarcomas of the colon (PLCs) are very rare and aggressive malignancies and are difficult to diagnose. PLCs affect patients aged 40–60 years, with a slightly higher predilection for men. PLCs may not be detectable on colonoscopic examination due to the fact that these tumors originate from muscularis propria layer of the bowel. PLCs are classified as a separate group from GI stromal tumors on the basis of their histopathological and clinical features. PLCs are mostly located in the transverse and sigmoid colon. These are aggressive tumors that mainly metastasize with a hematogenous spread, lymphatic spread is rare. The liver, lungs, bones, and peritoneal cavity have been described as most common locations for distant metastasis (2,3).

Intraabdominal bleeding due to the spontaneous rupture of a leiomyosarcoma is a very rare complication and is generally seen in uterine leiomyosarcoma cases with tumor diameter larger than 10 cm (4). We described a case of spontaneous rupture of a PLC, a very rare complication that occurred in a male patient who had a primary colonic leiomyosarcoma larger than 10 cm in diameter.

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