Hemoperitoneum after colonoscopy

Fig. 1 Abdominal radiograph centered at the diaphragm excludes the presence of pneumoperitoneum.

Fig. 2 Contrast-enhanced axial computed tomography images of (a) abdomen and (b) pelvis show intact spleen and free fluid with density measurements compatible with blood.

Colonoscopy is the primary screening procedure for colorectal cancer and carries very low risk of complications (between 0.3% and 0.35%) [1]. It is estimated that 1.69 million colonoscopies are performed each year in the USA alone [2]. The most common complications are intraluminal gastrointestinal bleeding and colonic perforation [1]. Infrequently, hemoperitoneum occurs, mostly involving damage to the spleen. We present a case of hemoperitoneum following colonoscopy without splenic injury.

A 59-year-old female presented to our emergency department following a syncope episode 12 hours after an unremarkable screening colonoscopy. Despite minor abdominal discomfort noted after the procedure, she resumed her normal activities. Pertinent history included a prior appendectomy. Besides pallor and minimal abdominal tenderness to palpation, physical exam was within normal limits. Laboratory tests showed a hemoglobin concentration of 10.4 g/dL and a hematocrit of 28.8%. Leukocyte count, electrolytes, blood urea nitrogen, and creatinine were normal. Stool was guaiac negative. An abdominal radiograph excluded pneumoperitoneum (● Fig. 1). Computed tomography (CT) scans of the abdomen and pelvis showed moderate amounts of free fluid demonstrating a density level suggestive of blood. The spleen appeared normal and there was no free air or extravasation of contrast from the bowel (● Fig. 2a,b). She was monitored for further bleeding and was subsequently discharged after 6 days.

Intra-abdominal hemorrhage, a rare complication of colonoscopy, is most commonly reported in conjunction with splenic injury. Other documented causes of hemoperitoneum after colonoscopies include a torn mesenteric vessel, a ruptured epiploic appendix, and a necrosed intestinal leiomyosarcoma [3–5]. Due to the lack of other findings, it was speculated that the etiology in this case was a torn mesenteric vein. Intra-abdominal adhesions from her appendectomy could have contributed.

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