

Colonoscopy complicated by arterial avulsion and retroperitoneal hemorrhage

A 77-year-old woman with a past surgical history of hysterectomy presented to the Emergency Department with increasing lower abdominal and back pain. A routine screening colonoscopy had been performed 8 hours previously; the endoscopist had noted that the colon was tortuous, however no abnormality had been seen.

Abdominal palpation demonstrated moderate generalized lower abdominal tenderness. Her white blood cell count (WBC) was found to be elevated at $24 \times 10^9/L$. An urgent computed tomography (CT) scan revealed a fluid density mass in the pelvis (● Fig. 1) and thickening of the sigmoid colon (● Fig. 2). The spleen and liver were normal, and no free air was visualized.

Laparotomy revealed a large retroperitoneal and retrorectal hematoma with only minimal blood in the abdomen. Adhesions between the colon and vaginal vault gave the rectosigmoid a tight S-shape, and a segment approximately 10 cm in length was ischemic. A branch of the superior rectal artery that had been avulsed could be identified. It is likely that during her colonoscopy, in the process of getting the 'tight S' into a shape that the colonoscope could navigate, the artery gave way as it had less resistance than the tight adhesions. Hartman's procedure was performed.

The most common complications of colonoscopy include hemorrhage (0.2%–0.5%) and perforation (0.9%–0.1%) [1,2]. The presence of fluid in the pelvis on CT scanning could make one think of a perforation; however, the lack of free air would make a perforation unlikely and hemorrhage more likely. Our patient remained hemodynamically stable because the bleeding remained retroperitoneal, which provided some degree of tamponade.

The scenario of a patient presenting to the emergency department after colonoscopy, particularly with abdominal tenderness, should make one very suspicious of a complication.

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Competing interests: None



Fig. 1 Computed tomography (CT) scan demonstrating significant retroperitoneal pelvic fluid without obvious extension into the peritoneal cavity.



Fig. 2 Computed tomography (CT) scan showing thick-walled rectosigmoid colon. Intraoperatively, there was an area of full-thickness ischemic necrosis.

K. Langer¹, S. Krieglner², M. Moser¹

¹ Department of Surgery, University of Saskatchewan, Saskatoon, Saskatchewan, Canada

² Department of Radiology, University of Saskatchewan, Saskatoon, Saskatchewan, Canada

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Corresponding author

M. Moser, MD

University of Saskatchewan – Surgery
103 Hospital Drive
Saskatoon
Saskatchewan S7N0W8
Canada
Fax: +1-306-966-7988
drmikemoser@yahoo.com