

## Letters to the Editor

### Splenic rupture after colorectal cancer screening

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*Key words: Colonoscopy. Splenic rupture. Splenectomy.*

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*Dear Editor,*

The number of colonoscopies performed in our hospital is increasing dramatically, especially those related to colorectal cancer screening programs. Bleeding and colonic perforation have traditionally been described as the most common complications. However, there are some “extraordinary” complications, such as the splenic rupture, which has an incidence of 0,004% (1).

This paper describes a hypertensive and hysterectomized 58-year-old woman who underwent a colonoscopy within the mentioned screening program. During the procedure, an anesthesiologist administered propofol for sedation. The endoscopy was perceived as of good quality because there was excellent bowel cleansing (Aronchick scale). Furthermore, the endoscopist performs more than 200 colonoscopies a year and has an adenoma detection rate (ADR) of above 20% after positive fecal blood test.

A 2 mm tubular adenoma was removed during the colonoscopy. The patient was discharged from the hospital according to the established protocol. Six hours after the procedure, the patient arrived at the Emergency Room because of hypotension, abdominal pain with signs of peritonism and positive Kehr's sign. The blood count showed 22.000 leukocytes and the hemoglobin level was 9.4 g/dL. An abdominal CT (2) scan was requested: It revealed a large, splenic-capsule-depending hematoma in the left hypochondrium. Free liquid in the abdominal cavity was also noted (Fig. 1). Based on these findings, an emergency lap-

arotomy was performed, showing an abundant hemoperitoneum due to splenic decapsulation. For this reason, a splenectomy was performed.

Although many studies have tried to explain the risk factors of splenic rupture following colonoscopy, these are still hypothesis. The most accepted causes (3) are the following: Endoscopic trauma when going into the splenic flexure, air insufflations, splenicocolic ligament tension leading to the rupture of the splenic capsule and the performance of procedures in a spleen-attached colonic wall. Moreover, the effect of deep sedation is unknown, as abdominal pain could make us aware of further tension in the splenicocolic ligament (4). We also wonder if the incidence of this

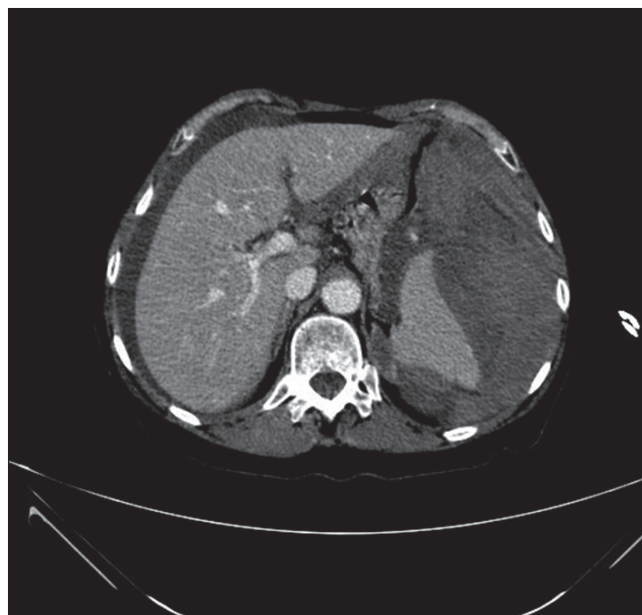


Fig. 1. CT: Splenic-capsule-depending hematoma of 15x7 cm. Free liquid in the abdominal cavity was also noted. It revealed a large, splenic-capsule-depending hematoma in the left hypochondrium. Free liquid in the abdominal cavity was also noted.

injury has been underestimated, although the growing number of processes could lead to an increase in this type of complications, especially following the introduction of colorectal cancer screening programmes (5). In the largest clinical cases series published in 2012 (6), colonoscopy was described as one of the most important causes of atraumatic splenic rupture, even over other causes such as malaria, infectious mononucleosis and hematological disorders like lymphoma or amyloidosis. It was also described as the most important complication following any medical procedure. Open surgery remains the “gold standard” management in these cases (6), even though conservative management, embolization (7) or laparoscopic (8) surgery were performed in selected cases. This complication usually happens 48 hours after the colonoscopy, which makes patients come back to the hospital as they are often discharged in the early hours after the procedure. Splenic rupture can also occur during good-quality colonoscopies, like those performed for colorectal cancer screening. For this reason, health staff should be aware of its existence (9), as an early reaction will avoid more severe problems (10).

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