

## Letters to the Editor

### Spontaneous hemoperitoneum due to rupture of short gastric artery after vomiting

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*Key words: Spontaneous hemoperitoneum. Cocaine. Vomiting. Short gastric artery.*

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Dear Editor,

We report a 25-year-old man who initially presented acute epigastric pain followed by vomiting after the ingestion of alcohol and cocaine. He denied having any significant medical history or having undergone any trauma. On arrival in the emergency room, he had upper abdominal pain but without any peritoneal sign. His biochemical profile showed 14,300 white blood cell and neutrophilia, and the blood hemoglobin level dropped from 11.4 to 7.3 g/L, hypotension and pallor skin. After stabilization of his vital sign in the Intensive Care Unit, he underwent ultrasonography and contrast-enhanced computed tomography (CT) of the abdomen (Fig. 1), which revealed a hematoma in the lesser sac, and massive fluid collection or bloody ascites was also found in subhepatic and Morrison's spaces. The patient underwent emergency exploratory laparotomy to stop the spontaneous bleeding from a small branch of the short gastric artery, which was ligated without complication, during the operation, 1500 mL bloody ascites was noted in the peritoneal space and 500 mL blood clot had impacted on the lesser sac. The patient received 4 U of packed red blood cells during the surgery and recovered uneventfully.

#### Discussion

Spontaneous rupture of short gastric vessel after vomit effort is an extremely rare event that can cause spontaneous hemoperi-

toneum. Bibliography is scarce and only 5 cases have been reported in England, North America, Spain, Italy, and Taiwan (1-5). In the literature, there are numerous well documented causes of spontaneous hemoperitoneum such as: gynecological disorders (ectopic pregnancy rupture, uterine myomas and endometriosis), malignancy (GIST, hepatic or renal tumor), blunt trauma, aneurismal rupture (central or visceral), idiopathic, deep abdominal varices from portal hypertension or excessive anticoagulant treatment (4-7). It is important to know the cocaine consumption in our patient. The cocaine has sympathetic and toxic effects at the central nervous and cardiovascular systems, leading to vasoconstriction, convulsive crisis, hypertension, arrhythmias and bleeding. The combination of alcohol and cocaine tends to have more toxicity (8,9).

It is clinically manifested by acute anemia syndrome and hypovolemia associated with abdominal pain, without any trauma. The spontaneous hemoperitoneum is a life-threatening condition may prove fatal even if promptly diagnosed and appropriately treated thus surgical intervention is the mainstay of treatment (7,10). In our case, he was diagnosed with hemoperitoneum resulting in hemorrhagic shock due to the spontaneous rupture of a small branch of the short gastric artery. The patient underwent emergency exploratory laparotomy with a good outcome. In the previous literature, the vomited effort is related to the Mallory Weiss, Boerhaave syndrome or even the rectum muscles hematoma but we do not know other cases of spontaneous hemoperitoneum with gastric vessels avulsion after vomiting with or without alcohol and cocaine consumption. Thus far, this is the first case reported in Spain. In our case, it is possible that cocaine hypertensive effect potentiated by the patient's emesis, increased stress on the splanchnic vessels, resulting in spontaneous intra-abdominal hemorrhage. Therefore, we can say that hemoperitoneum should be considered in the differential diagnosis of acute abdominal pain in cocaine abusers (1-3,5,8,9).

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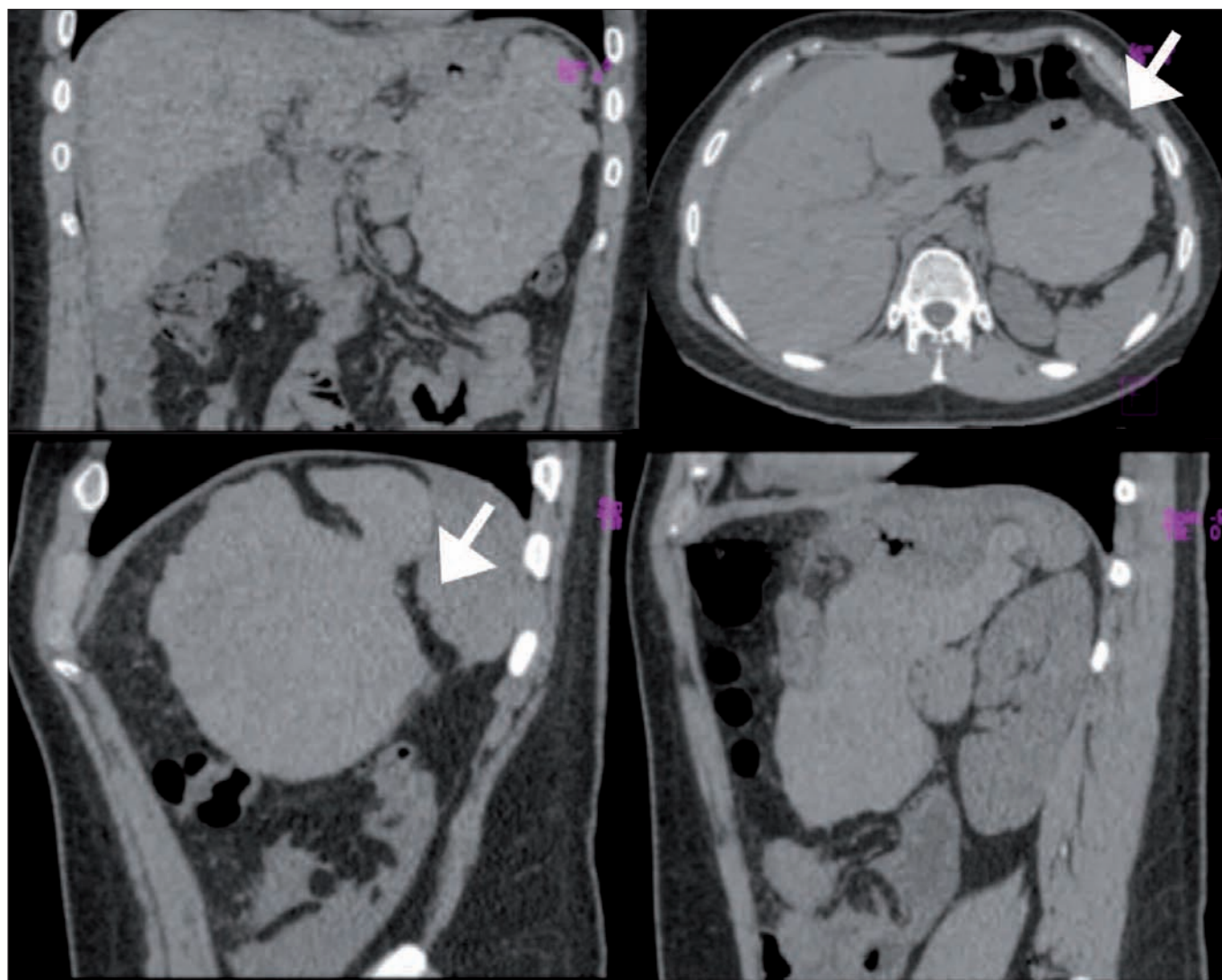


Fig. 1. Abdominal computed tomography: hematoma in the lesser sac (white arrow).

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