

Intermittent Herald Bleeding: An Alarm for Prevention of the Exsanguination of Aortoenteric Fistula before it Arrives

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DEAR EDITOR

Consideration of “intermittent herald bleeding”, especially in the cases of obscure gastrointestinal (GI) bleeding may provide a valuable clue for detection of aortoenteric fistula (AEF). AEF is a direct connection between abdominal aorta and gut, most commonly duodenum.^[1,2] An 86-year-old man was admitted to our emergency department with an acute hematemesis. He also complained of melena in last two days. The patient mentioned neither trauma nor surgery in his past medical history. He had a history of diclofenac consumption for one month and opium abuse for many years.

Physical examination revealed pallor, tachycardia and hypotension. An abdominal examination was normal. Laboratory study was hemoglobin 7.4 mg/dL, hematocrit 24.8% and platelet count 106000/ μ L. Upper gastrointestinal endoscopy showed antral type gastropathy. Because of recurrent hematemesis, second look endoscopy was performed in the following day, which disclosed no remarkable finding. Recurrent episodes of hematemesis with severe bleeding in next three days led him to blood transfusion requirement. In the following CT angiographic study of abdominal aorta, aneurismal dilation of abdominal aorta initiated from below the origin

of renal artery to aortic bifurcation was seen with anteroposterior diameter 40 mm. There were seen a circumferential mural thrombosis and also a small perianeurismal hematoma. The findings were consistent with the diagnosis of AEF. In the seventh day of hospitalization, while the patient was being prepared for surgical repair, massive hematemesis occurred and unfortunately he died.

In a few percent of patients with GI bleeding despite performing the usual evaluations no obvious source of bleeding may be found. In such challenging cases, presence of some clinical clues may hold important values in the diagnosis. Recurrent hematemesis, in the absence of evident endoscopic findings, has not a broad range of differential diagnoses. Some of these diagnoses include Cameron's ulcers, dieulafoy's lesions, vascular ectasias and AEFs.^[3]

AEFs may be primary, following a spontaneous connection between gut and aneurismal aorta, and secondary, following an aortic repair surgery.^[1,4,5] The main and most common manifestation of AEF is GI bleeding.^[1,6] Patients usually present with an intermittent herald bleeding as recurrent hematemesis or hematochezia, which may end to fatal exsanguination.^[7,8] Self-limitation of herald bleeding is probably because of plugging the fistula by thrombus formation and/or spasm of intestinal

wall around the fistula.^[1,8] After subsidence of herald bleeding, there may be an interlude of hours to months, until the exsanguination arrive.^[7] The AEFs, which remain undiagnosed and untreated in this interlude have a mortality rate of approximately 100%.^[1,4]

Endoscopic evaluation in AEF is mainly helpful for exclusion of other causes of upper GIB.^[9] However, endoscopy may itself promote massive GI bleeding.^[7] CT scan is less invasive and may be a valuable tool for preoperative diagnosis.^[4,8] CT scan may demonstrate the size and location of aneurysm, degree of calcification, presence of thrombus or air bubble in the aneurysm and also any connection between gut and abdominal aorta.^[7,8] Surgical repair is the standard and indispensable treatment, in both primary and secondary AEF.^[6,10]

In conclusion, a high index of suspicion is essential for timeliness diagnosis of AEF. AEF should be considered in each case of recurrent hematemesis/hematochezia with normal endoscopic evaluation.

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