A 70-years-old man was admitted at the emergency room for onset of fever, malaise and discharge of melena. At the admission, his vital signs were: blood pressure 135/70 mmHg, heart rate 92 bpm, O2 saturation 95%. Blood sample showed mild normocytic anaemia (Hb 12.1 g/dL), leucocytosis (White blood cells count 12.300/mmc, Neutrophil 77%), rise of C-reactive protein (7.3 mg/dL, normal value < 0.5 mg/L), normal kidney function (creatinine 1.0 mg/dL). Clinical examination was remarkable for mild epigastric pain.

Eight months before, the patient underwent to endovascular aneurism repair (EVAR) of abdominal aorta, placing prosthetic aortic endovascular stent (Zilver stent 518, Cook Inc., USA). For what concern pharmacologic anamnesis, at the moment of the admission the patient took aspirin, antihypertensive and hypocholesterolemic agents.

After first medical evaluation, a contrast-enhanced abdominal CT was performed, showing air microbubbles around aortic endovascular prosthesis without clear communication between aortic and duodenal wall (Figure 1).

Given the suspicious of aorto-enteric fistula (AEF), an urgent upper endoscopy was performed, showed ulcerated, actively bleeding lesion within metal mesh of endovascular stent outcropping in the distal duodenal wall (Figure 2) (Video 1).

On this basis, the patient was referred to open laparotomy, performing initial extra-antomical axillo-bifemoral bypass, followed by aortic endarterectomy, removing the infected aortic stent and positioning a Dacron polyester tube graft. Even more, the duodenal orifice of AEF was resected and the leak sutured.

In the days after, the patient didn’t show melena anymore. However, the renal function became to fail and 15 days later, the patient was moved to intensive care unit (ICU) and he was subjected to haemodialysis. The most likely cause of renal failure was the partial or complete exclusion of both renal arteries from the blood flow. Two months after abdominal the patient died for septic shock due to antibiotic-resistant Pseudomonas aeruginosa infection.

Secondary AEF is an infrequent but potentially lethal complication of patients with endovascular stent [1,2]. The pathogenesis of the AEF is not clear and different factors could play a role. In the case of open surgery, the most important are local infection, direct bowel...
Unfortunately, despite early diagnosis with aggressive antibiotic and surgical treatment, overall AEF mortality rate remains between 10% and 50% [4].

Conflicts of Interest

The authors disclose no conflicts.

References


