

Ischemic stroke and ST-elevation myocardial infarction revealing infective endocarditis

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Abstract. – In this clinical scenario, we report the case of a patient who presented multiple embolic complications due to mitral infective endocarditis (IE). A 68-year-old woman had extended right hepatectomy for hilar cholangiocarcinoma. Unfortunately, she had multiple postoperative complications and had to be transferred to the Intensive Care Unit. During this stay, we have diagnosed an *Enterococcus faecium* IE after the occurrence of multiple embolic complications (myocardial infarction, ischemic stroke, digital emboli, splenic emboli, and renal emboli). The case is presented hereunder with illustrative imagings. While embolism is a known complication of IE, the presence of multiple emboli in various organs is rare.

Key Words:

Endocarditis, Valvular disease, Complications.

Case Presentation

A 68-year-old woman diagnosed with hilar cholangiocarcinoma underwent extended right hepatectomy with biliodigestive anastomosis and resection-anastomosis of the portal vein. She developed a postoperative biloma, for which a percutaneous CT-guided drainage was performed. Unfortunately, the patient developed a thoraco-abdominal biliary fistula that led to subsequent empyema, which needed surgical decortication by thoracotomy. The postoperative course was also marked by ST-elevation myocardial infarction necessitating right coronary stenting (Figure 1a). The patient was later transferred to the Intensive Care Unit (ICU) for respiratory failure and needed to be intubated. Before her transfer to the ICU, the patient presented an episode of confusion. During her ICU stay, she developed digital emboli bilaterally (Osler's nodes) and delayed awakening after

sedation stop. Cerebral CT showed an important ischemic stroke (Figure 1b). In reviewing the previous abdominal CT, splenic (Figure 2a) and renal infarcts (Figure 2b) were found. As endocarditis was suspected, a transesophageal echocardiography was performed and revealed a 15-mm vegetation on the mitral valve. The patient was given antibiotherapy but intensive care was stopped considering poor neurological state and bad oncologic prognosis. The patient died 10 days later. The autopsy examination identified *Enterococcus faecium* on the mitral valve, but surprisingly only calcifications were found macroscopically on the valve suggesting that the vegetation had completely dislodged.

Discussion

This complicated oncologic patient scenario demonstrates a case of native mitral valve infective endocarditis (IE) with multiple peripheral and central emboli supported by illustrative imagings. All embolic events (myocardial infarction, ischemic stroke, splenic/renal infarcts, and digital nodules) were related to the mitral IE. In IE, embolic events can remain totally silent in 20-50% of cases^{1,2}, which was not the case in this patient. Main criteria for valve surgery are symptomatic mitral regurgitation, annular abscess, heart block, fungal or difficult-to-treat pathogens, persistent infection despite antibiotherapy (uncontrolled infection), recurrent emboli, vegetation size > 10 mm, heart failure, and prevention of embolic events in patients at high risk^{1,3}. Treatment of the emboli (anticoagulation, antibiotherapy, and/or surgery) depends on the embolization sites and the pathology, but therapeutic anticoagulation represents the corner stone of treatment if no contra-indications exist.

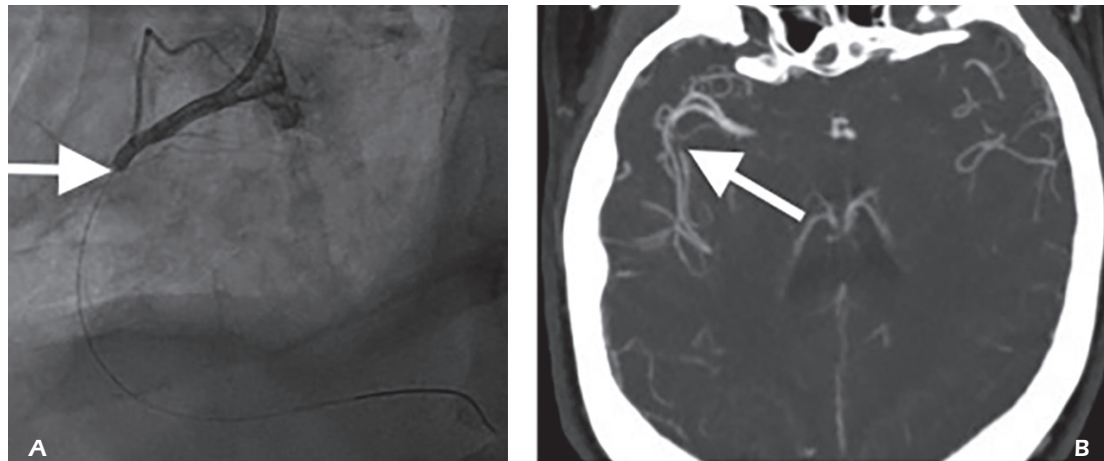


Figure 1. Major embolic complications: **A**, Coronarography showing embolic occlusion of the right coronary artery (*arrow*) causing ST-elevation myocardial infarction. **B**, Axial cerebral CT angiography showing embolic occlusion of the second portion of the right middle cerebral artery (*arrow*) leading to ischemic stroke.

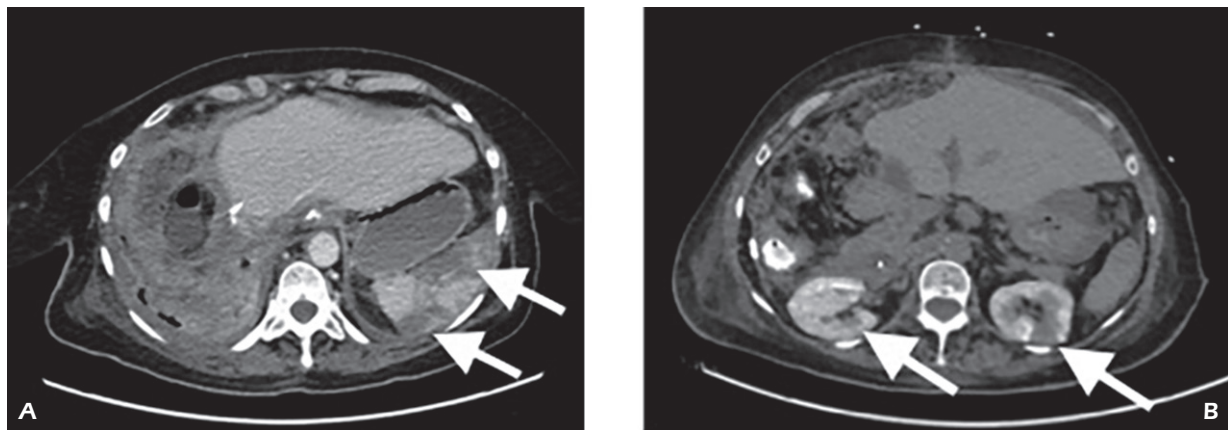


Figure 2. Axial abdominal CT-scan showing: **A**, The splenic infarcts (*arrows*) **B**, The renal infarcts (*arrows*).

Conclusion

In case of multiple emboli without clear etiology, the diagnosis of IE should be evoked, and an echocardiography should be performed.

Conflict of Interest

The Authors declare that they have no conflict of interests.

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