

## Two Serious Complications Observed in Emergency Department in a Cardiovasculopathic Patient

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**Received:** April 28, 2018

**Accepted:** May 22, 2018

**Published:** May 23, 2018

**Citation:** Magro VM, Cacciapuoti F, Caturano M, Verrusio W. 2018. Two Serious Complications Observed in Emergency Department in a Cardiovasculopathic Patient. *J Med Imaging Case Rep* 2(1): 10-11.

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Dear Sir,

Aortic graft infection is a potentially lethal complication of open and endovascular repair of aortic aneurysm. Despite its relatively low overall incidence, the absolute numbers of graft infection are rising with a reported graft infection incidence of 0.2 to as high as 6% [1]. Overall morbidity and mortality rates are high, and in cases of patients' readmission due to aortic graft infection, in-hospital mortality can be 18% or higher [2]. There is no universally accepted aortic graft infection case definition; the clinical approaches to these complex cases differ widely with variable outcomes and the management of this condition seems even more complex, in the first aid setting. A 76-year-old man with a history of Coronary Artery Disease (CAD), previous Myocardial Infarction (MI) in anamnestic therapy with warfarin and implantation of aortic graft for Abdominal Aortic Aneurysm (AAA) 6 months earlier. Admitted to our Emergency Department for abdominal pain and sweating. On clinical examination, the patient was awake and oriented, asymptomatic for chest pain and well breathing, afebrile. Heart Rate was 100 bpm, blood pressure 140/80 mmHg. Tender abdomen, painful while palpating. Blood test showed WBC 9270/u, Hb 13.7 mg/dl, Lactates 1.9 mmol/L, creatinine serum level 1.41 mg/dl, INR 2.36, C-reactive protein 113 mg/L. In order to evaluate the abdominal aorta, a CT-scan was performed showing a heterogeneous picture at both cardiac (Figure 1, with a formation in the apical wall of the left ventricle and an image of wall motion deterioration), vascular and abdomen levels (Figure 2). One of complication of MI is left ventricular thrombus formation. The CT scan of our patient showed left ventricular apical ballooning with evidence of apical thrombus: in fact, when thrombus cannot clearly demonstrate with echocardiography, a second level exam as a CT is recommended because its higher sensitivity and the optimal therapy of this condition is based on anticoagulant therapy (the patient was under warfarin) [3, 4]. At the same time, CT showed perigraft fluid collection with ectopic air and lymphadenopathy. According with the Vascular surgeon, the patient was hospitalized to remove the graft and establish the vascular flow to the distal bed. Vascular prosthetic graft infection is a severe complication after open aortic aneurysm repair and follow-up protocols do usually not include a screening strategy to detect endograft infection, so the diagnosis of this fearful complication can be incidental, during first-aid access due to unspecific symptoms (an abdominal pain or a presence of an unclear etiology fever. Moreover, the white blood cells of the patient were not altered, and the lactates were not overly moved) where the suspected diagnosis is often posed for a positive history of aneurysmatic pathology. Even if the incidence of stent graft-related sepsis is currently low, nevertheless, as more patients are treated by endovascular technique, there is an increasing need to be vigilant for the risk of graft infection [5]. In the approach to this case we followed, in an evidence-based

perspective, the results and the indications of the MAGIC (Management of Aortic Graft Infection Collaboration) trial [6], together with a multidisciplinary approach, as almost always happens when operating in an emergent or urgent environment.

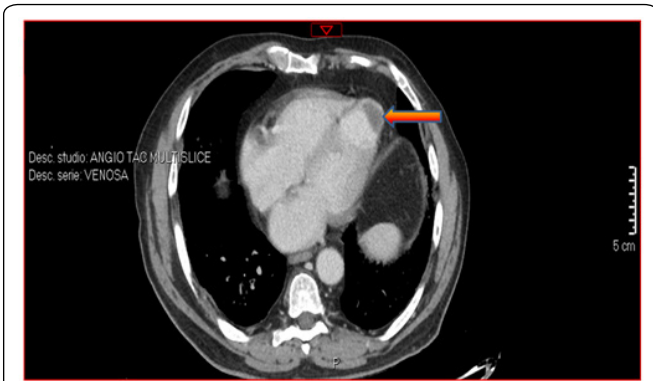


Figure 1: Left ventricular apical thrombus (arrow).

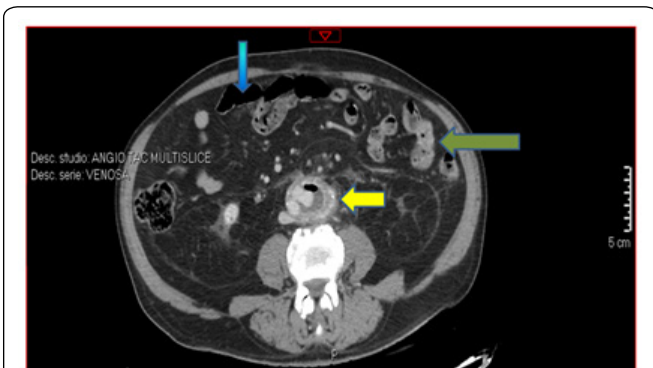


Figure 2: Perigraft fluid collection with ectopic air and lymphadenopathy (arrows).

## Conflict of Interests

The authors state that they have no conflicts of interest.

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