



Interesting Image / İlginç Görüntü

A case of atypical clinical presentation of acute aortic syndrome

Akut aortik sendromlu bir olgunun atipik klinik tablosu

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A 61-year-old woman with a history of uncontrolled hypertension presented to the emergency room with symptoms of confusion, nausea, dizziness, and recent recurrent syncopal episodes. Physical examination was unremarkable, except for blood pressure 70/40 mmHg in both arms with a heart rate of 95 bpm. The 12-lead electrocardiography (ECG) demonstrated normal sinus rhythm without ischemic changes. Transthoracic echocardiography showed normal left ventricular systolic function with mild pericardial effusion. The initial laboratory analysis was within normal limits, including blood gas analysis and troponin levels. The patient underwent computed tomography angiography (CTA) to diagnose the etiology of persistent hypotension, syncope, and pericardial effusion and CTA and its three-dimensional reconstruction images revealed irregular contrast collection in the arcus aortic wall which was consistent with penetrating aortic ulcer. Computed tomography angiography also demonstrated periaortic fluid collection of the ascending aorta and aortic arch, but no dissection flap which is not consistent with typical acute aortic syndrome features (Figure 1a-d). During two hours of intensive care unit (ICU) follow-up, the patient became hypotensive, despite intravenous fluid and vasopressor therapy. Her serum hemoglobin level was reduced from 15.7 g/dL to 13.2 g/dL. Follow-up CTA was performed which revealed progression of penetrating aortic ulcer and intramural aortic hematoma with distinct pleural effusion (Figure 1e, f). The patient was

transferred to the cardiovascular surgery clinic with a diagnosis of progressive penetrating aortic ulcer and intramural aortic hematoma. During surgery of the aorta, subclavian artery was selected for the arterial cannulation given that there was no suitable place found in the aorta. Cardioplegic arrest was provided with Custodiol solution, since long aortic clamp time was anticipated. A 28-mm Dacron graft was used for the replacement of the ascending aorta (Figure 2a-d). Postoperatively, the patient recovered without any complication and discharged from the hospital.

Acute aortic syndrome (AAS) is an acute lesion of the aortic wall which increases the risk of aortic rupture. Acute aortic syndromes such as acute aortic dissection, intramural hematoma, penetrating aortic ulcer are life-threatening medical conditions and rapid diagnosis of AAS can be life-saving.^[1,2] There are several typical findings suggesting acute aortic syndrome, such as chest pain, blood pressure differences between right and left arm, ischemic changes on ECG, and increased troponin level. However, definite diagnosis of acute aortic syndrome could be only made with CTA.

In conclusion, evaluation of undifferentiated persistent hypotension and progressive hemoglobin decline by computed tomography angiography appears to be effective modality for excluding acute aortic syndrome, despite normal electrocardiography and troponin levels.

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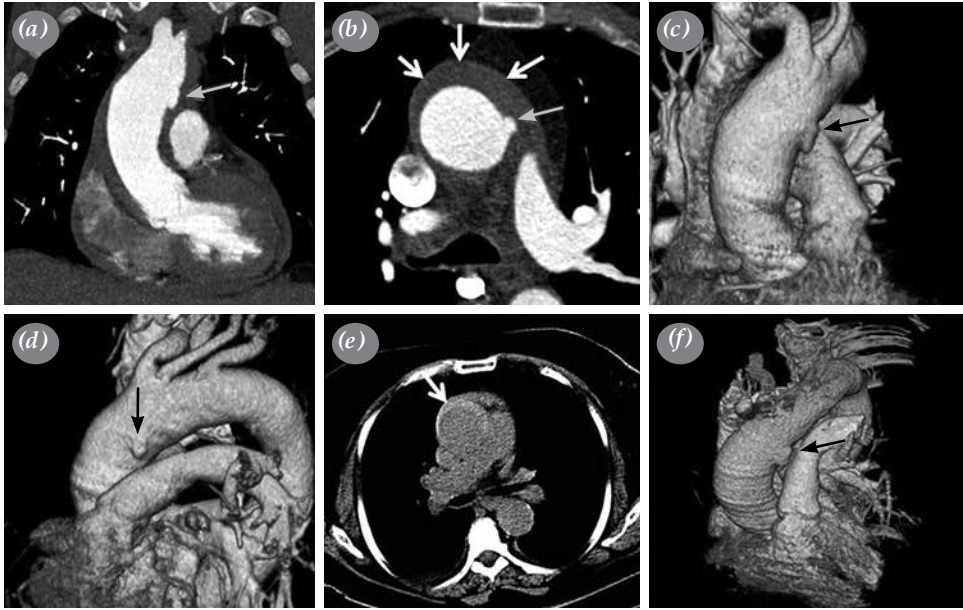


Figure 1. (a, b) Coronal reformatted multi-plane reconstruction image and axial contrast enhanced computed tomography images showing a focal collection of contrast material in the aortic wall consistent with penetrating aortic ulcer (gray arrow) and intramural hematoma (white arrows). (c, d) Oblique coronal and oblique sagittal volume rendering technique images showing the protrusion resembling a mushroom (black arrow). (e) Follow-up unenhanced computed tomography image showing a crescent-shaped area of hyperdensity in the aortic wall corresponding to an intramural hematoma (white arrow). (f) Follow-up oblique coronal volume rendering technique image showing progression of penetrating aortic ulcer (black arrow).

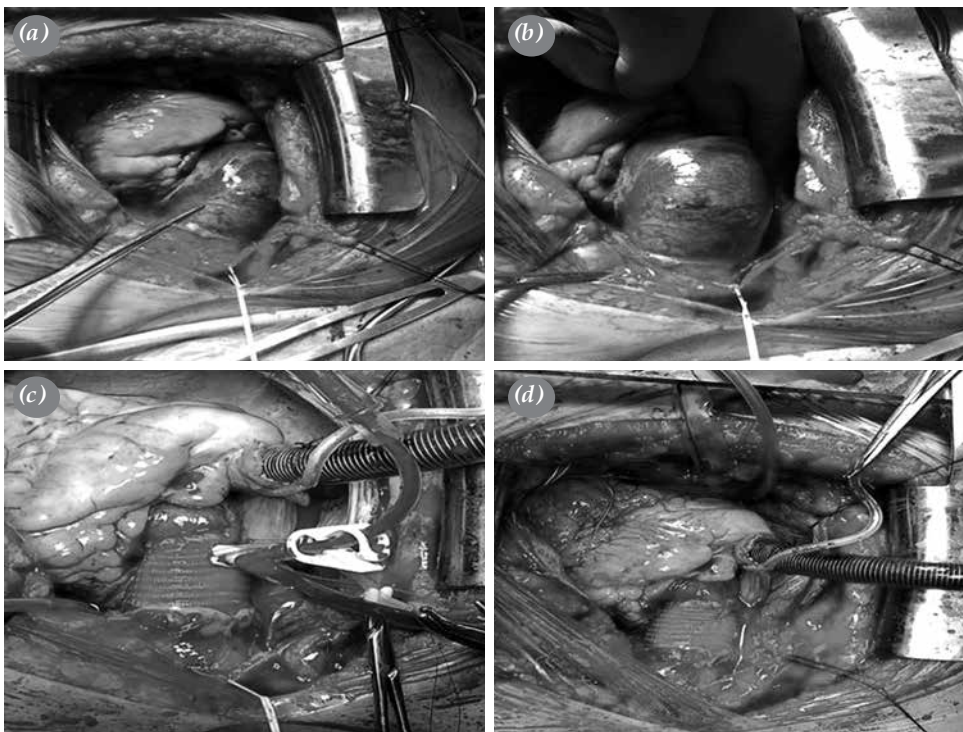


Figure 2. Intraoperative images showing (a, b) intramural hematoma of aorta and (c, d) replacement of ascending aorta with a 28-mm Dacron graft.

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