

Impending rupture of a giant ascending aortic aneurysm

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An 82-year-old male with a history of hypertension presented with resting dyspnea and orthopnea of 72 hours duration. At admission blood pressure was 145/75 mm Hg and respiratory rate was 30 beats/min. Jugular venous pressure was increased and heart sounds were diminished and arrhythmic. Pulmonary auscultation revealed absent breath sounds over the left lung base. Electrocardiogram showed atrial fibrillation at a mean rate of 120 beats/min, and low QRS voltages. Chest X-ray film revealed left pleural effusion and enlargement of the cardiac silhouette. Transthoracic echocardiography (Fig. 1) and contrast computed tomography (Fig. 2) disclosed a large pericardial effusion with incipient echocardiographic signs of cardiac tamponade, as well as a huge fusiform aneurysm of the ascending aorta with a maximum transverse aortic

diameter of 105 mm; no evidence of aortic dissection was noted. Unfortunately, the patient experienced an episode of acute hemodynamic collapse that could not be reversed. Necropsy confirmed aortic rupture, and the etiology of the aortic aneurysm was found to be atherosclerotic.

Few cases of ascending aortic aneurysms measuring more than 10 cm have been reported [1, 2]. Our case illustrates the unfortunate outcome of some of these cases. Rupture of an ascending aortic aneurysm into the pericardium may be rapidly fatal owing to acute cardiac tamponade; however, if the bleeding is contained, the patient may have a chance to survive; in such cases, emergency surgical intervention is mandatory; pericardiocentesis is controversial because it may precipitate recurrent hemorrhage and rapid death, particularly in the

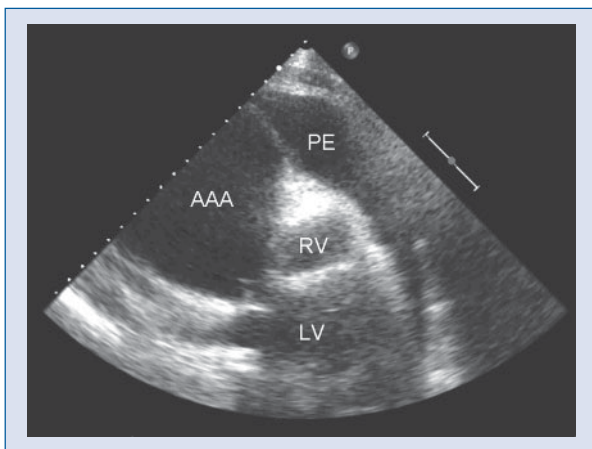


Figure 1. Echocardiographic right parasternal long axis view revealing a huge ascending aortic aneurysm (AAA) in longitudinal section. A large pericardial effusion (PE) is also evident; LV — left ventricle; RV — right ventricle.

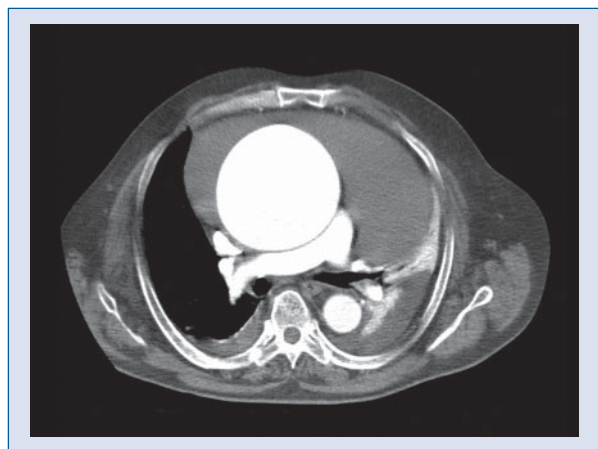


Figure 2. Contrast computed tomography disclosing the ascending aortic aneurysm along with severe pericardial effusion and bilateral pleural effusion.

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setting of type A aortic dissection [3, 4]. Operative mortality is high, but death is almost certain in the absence of surgical treatment [5].

References

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