

Letter to the Editor

A giant, free-floating thrombus in the right atrium and pulmonary artery in an asymptomatic patient with over adenocarcinoma

Dear Editor,

We have greatly enjoyed reading the article by Rose and coworkers entitled "Giant right atrial thrombus in hepatocellular carcinoma: real-time characterization by cardiac magnetic resonance and real time three-dimensional echocardiography"¹. In that interesting case the Authors highlighted the togeterhness of giant right atrial thrombus and malignancy. We tried to present a similar case report of giant, free-floating thrombus in the right atrium and pulmonary artery in an asymptomatic patient with over adenocarcinoma.

A 65 year-old women scheduled for gynecological surgery due to ovarian adenocarcinoma was admitted our Cardiology Outpatient Clinic for preoperative assesment. Her medical history was unremarkable for any cardiovascular disease. On physical examination heart sounds were dysrhythmic, either dyspnea or tachypnea was not present. Twelve-lead electrocardiography (ECG) showed atrial fibrillation with a ventricular rate 88 bpm. Afterwards, transthoracic echocardiography (TTE) was planned whether any valvular heart disease and/or ischemic heart disease was present or not. Suprisingly, TTE revealed that a giant, highly mobile thrombus in the right atrium and protruding into the right ventricle during every systole (Figure 1). Also, we noticed that giant thrombus was extending into the pulmonary artery and right pulmonary artery, and partially obstructed the pulmonary artery at the bifurcation. Doppler ultrasound of lower extremity revealed chronic superficial femoral vein thrombus extending to the popliteal vein as a potential source of thrombus and contrast-enhanced spiral thorax computed tomography revealed massive giant thrombus in the right atrium and massive pulmonar embolism. Interestingly, although massive pulmonar embolism, the patient's condition was good. Cardiovascular surgery consultation was immediately taken in order to surgical removal of the thrombus. Due to co-existence of giant right heart and pulmonary thrombus, massive pulmonary embolism and patient's good condition, thrombolytic treatment was chosen and administered at recommended dosage. Fortunately, the patient well-tolerated the given therapy and the patient's condition began to improve gradually.

Mobile right heart thrombus is a rare phenomenon and usually diagnosed when echocardiography is performed in patients with suspected or proven pulmonary embolism. However, in our case, the patient did not have any symptoms and/or signs of pulmonary embolism and mobile right heart thrombus was diagnosed during pre-operative cardiac evaluation. Malignant diseases are independent risk factors for hypercoagulability. Among them, the breast cancer is most well-known². Also, hepatocellular carcinoma, renal cell carcinoma, uterus cancer and malignant thymoma have been reported with associated giant right atrial thrombi. Other than malignant disease, antiphospholipid syndrome, congenital structures such as Budd-Chiari network, persistent eustachian or thebesian valves, atrial septal aneurysms or acquired conditions such as intracardiac tumors, devices (occluder devices), venous access catheters such as hemodialysis catheter and vegetations have been proposed as potential causes of giant mobile right heart thrombus³. Transthoracic echocardiography (2D and/or 3D) is a rapid, practical, and sensitive technique for the fast identification of mobile right heart thrombi⁴. These

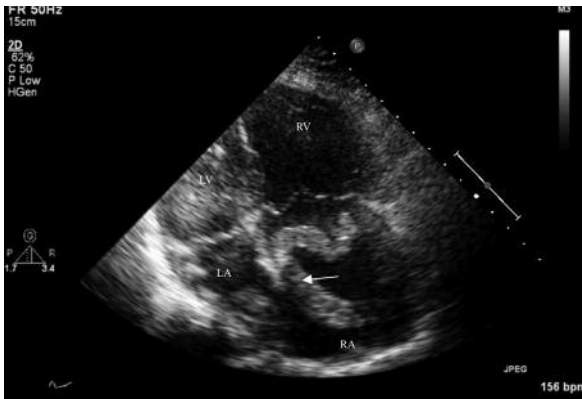


Figure 1. Apical 4 chamber echo view shows giant thrombus in right atrium and thrombus protruding into the right ventricle during the systole. RA: right atrium; RV: right ventricle; LV: left ventricle; LA: left atrium, arrow denotes giant thrombus.

thrombi are emergency situation. It is very critical to intervene quickly in this situation because any delay in treatment can be fatal. The management is still controversial. Some Authors have considered surgery as the most efficient treatment choice while others accepted that thrombolytic therapy is an efficient and safe management strategy and suggested that surgery should be chosen as first line intervention for mobile right heart thrombi⁵. In our case, the patient well-tolerated the given thrombolytic therapy at recommended dosage and any surgical intervention was not required.

References

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