

Right Outflow Tract Sarcoma Simulated Pulmonary Artery Thromboemboli

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Right heart sarcoma are used in differential diagnosis of pulmonary thromboemboli. Therefore, in case of pulmonary artery thromboembolism, this condition should be taken into account.

1. Introduction

A 43-year-old man presented to our center with dyspnea NYHA functional class III as his chief complaint. The patient's condition was good without any respiratory or circulatory distress. Physical examinations were also unremarkable, except for tachycardia. Electrocardiography showed sinus tachycardia with right ventricular strain pattern. Besides, transthoracic echocardiography showed that a large heterogonous mass (25*60mm) originated from right ventricular outflow tract had filled the main pulmonary artery and the right pulmonary artery branch (Figure 1, Video 1). Additionally, right heart chambers were enlarged and pulmonary artery pressure was estimated as 60 mmHg. Pulmonary CT angiography (256 slices) confirmed the presence of a mass in the pulmonary artery (Figure 2).

What is this mass?

2. Answer

Unfortunately, the patient expired in the operating room.

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Yet, pathological examinations of the surgical biopsy showed undifferentiated spindle cell sarcoma (Figure 3).

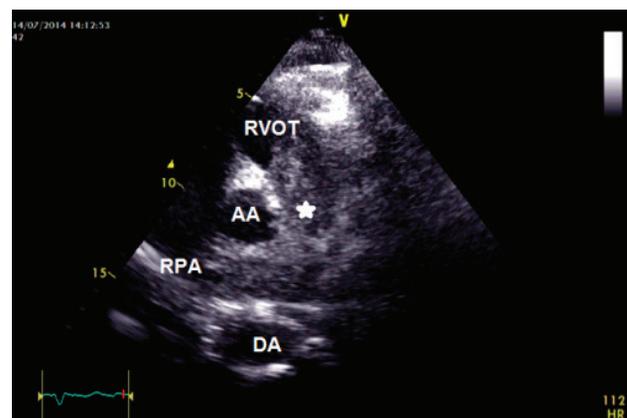


Figure 1. The Mass (*) Filling the Main and Right Pulmonary Arteries in Transthoracic Echocardiography. AA: Ascending Aorta, DA: Descending Aorta, RPA: Right Pulmonary Artery, RVOT: Right Ventricular Outflow Tract

3. Comment

Right heart spindle cell sarcoma is a rare tumor in heart.

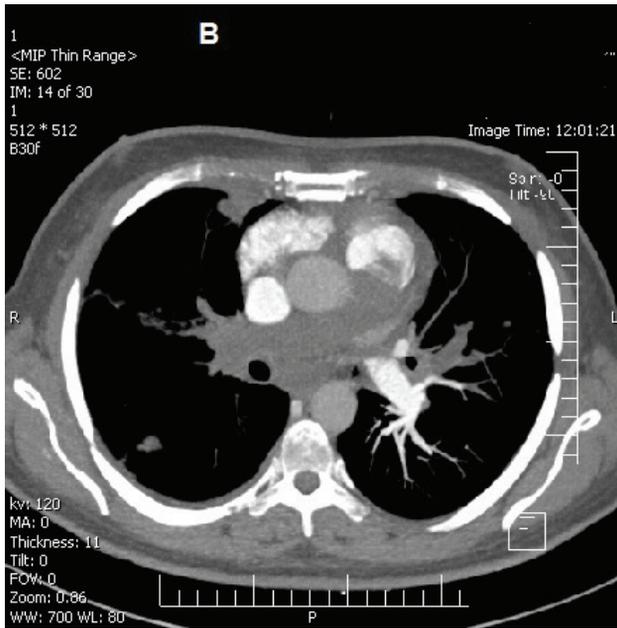


Figure 2. The Mass Filling the Main and Right Pulmonary Arteries in CT Angiography

Right heart sarcoma originated from the right heart (1-3) can be used in differential diagnosis of pulmonary thromboemboli, particularly when it is extended to the pulmonary artery. Thus, in case of pulmonary artery thromboembolism, this condition should be taken into account.

Video 1. The Mass Filling the Main and Right Pulmonary Arteries in Transthoracic Echocardiography

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Authors' Contribution

Study concept and design, Drafting of the manuscript, Statistical analysis, Study supervision: Ali Hosseinsabet;

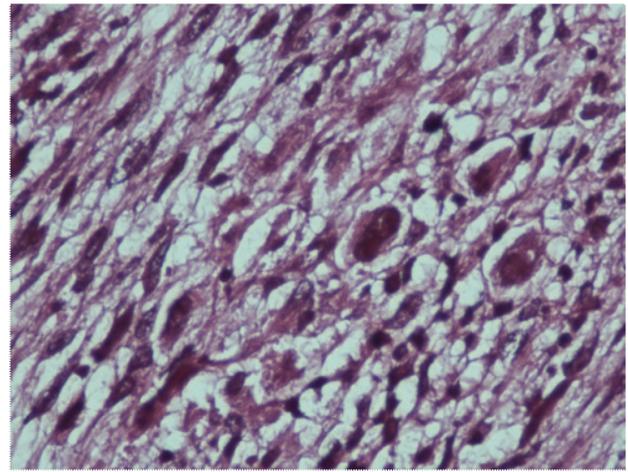


Figure 3. High Power Magnification of the Undifferentiated Spindle Cell Tumor

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References

1. Badr R, Kaur S. Intraoperative echocardiographic images of right ventricular outflow tract sarcoma. *J Cardiothorac Vasc Anesth.* 2013;**27**(5):e54-5.
2. Portillo-Sanchez J, Hessein-Abdou Y, Puga-Alcalde E, Perez-Martinez MA, Del Carmen Jimenez-Meneses M, Camacho-Pedrero A, et al. Primary pulmonary artery sarcoma extending retrograde into the superior vena cava. *Tex Heart Inst J.* 2011;**38**(1):77-80.
3. Varadharajan R, Parida S, Adinarayanan S, Badhe AS. Transesophageal echocardiography images of right ventricular sarcoma. *Ann Card Anaesth.* 2013;**16**(4):302-3.