

Right atrial mass in a colon cancer patient

Marina Vidosavljević^{1,2}
Dijana Dumančić^{3,4}
Boris Dumenčić^{3,4}
Livija Sušić^{2,3}
Goran Galić⁵
Domagoj Vidosavljević^{3*}

¹University Josip Juraj Strossmayer, Interdisciplinary postgraduate study Molecular Biosciences, Osijek, Croatia

²Health Center of Osijek-Baranja County, Osijek, Croatia

³University Josip Juraj Strossmayer, Faculty of Medicine Osijek, Osijek, Croatia

⁴University Hospital Centre Osijek, Osijek, Croatia

⁵General County Hospital, Vinkovci

KEYWORDS: myxoma, atrium, embolism, echocardiography.

CITATION: *Cardiol Croat.* 2024;19(11-12):566-7. | <https://doi.org/10.15836/ccar2024.566>

***ADDRESS FOR CORRESPONDENCE:** Domagoj Vidosavljević, Medicinski fakultet Osijek, J. Huttlera 4, HR-31000 Osijek, Croatia. / Phone: +385-98-618-528 / E-mail: domagoj.vidosavljevic@gmail.com

ORCID: Marina Vidosavljević, <https://orcid.org/0009-0007-0638-7970> • Dijana Dumančić, <https://orcid.org/0000-0002-8326-687X> • Boris Dumenčić, <https://orcid.org/0000-0002-5603-6294> • Livija Sušić, <https://orcid.org/0000-0001-7271-4449> • Goran Galić, <https://orcid.org/0009-0000-7178-5114> • Domagoj Vidosavljević, <https://orcid.org/0000-0002-0621-5403>

Introduction: Myxomas are the most common benign mesenchymal heart tumors. Right atrium myxomas occur in 10-20% of all cases.¹⁻²

Case report: 61-year-old male has been diagnosed with rectal adenocarcinoma and treated by neoadjuvant chemotherapy and surgery in 2022. In 2023, he was reoperated due to local metastasis. During this March, cancer progressed in pelvis and asymptomatic pulmonary embolism of the branches for the right lung middle lobe was registered on CT scan. Embolism was presumed instead of metastasis, so anticoagulant therapy was introduced, and heart echo was recommended. A transthoracic echocardiogram (TTE) showed heart cavities of normal size and preserved biventricular contractility, and formation attached to right atrial wall was shown, not limiting the blood flow in the right atrium and through the tricuspid valve, without signs of pulmonary hypertension (**Figure 1**). Contrast-enhanced CT scan described a homogeneous, hypodense semilunar defect, measuring 4x2x4.5 cm with signs of moderate post-contrast imbibition, located along the posterior contour of the right atrium and morphologically inseparable from the vena cava inferior (**Figure 2**). Surgical removal of the tumor was performed and pathohistological diagnosis showed myxoma (**Figure 3**).

Conclusion: CT angiography has a high degree of specificity in the PE diagnosis, but TTE remains an important method of diagnosing suspected PE and a method of excluding other CVD. TTE has a high sensitivity (95-100%) but TEE is a better choice for tumors 1-3 mm in size and located on posterior wall of the left and right atrium and atrial septum. Myxomas of the right atrium usually are not the source of fatal PE and surgical removal of right atrial myxoma with PE is the first line of treatment. The recurrence rate of right atrial myxoma is 1-3%, and the risk of recurrent PE is 0.4-5%. The interval from surgery to recurrence of myxoma is several months to eight years, therefore annual TTE and CT angiography or ventilation perfusion lung scintigraphy are recommended during the same period. In this case, right atrial myxoma was the probable source of the PE.

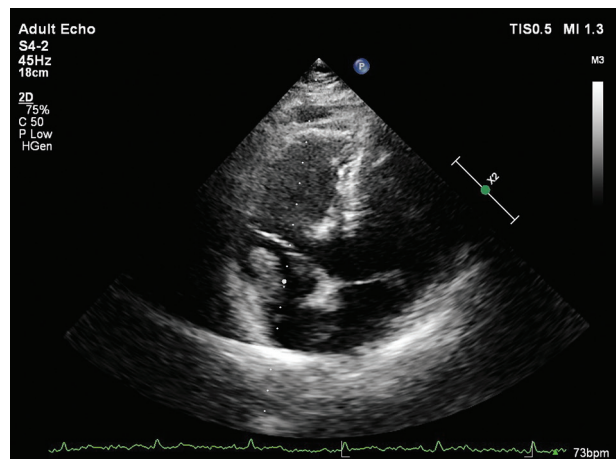


FIGURE 1. A transthoracic echocardiogram with formation attached to right atrial wall.

RECEIVED:
October 10, 2024

ACCEPTED:
October 31, 2024



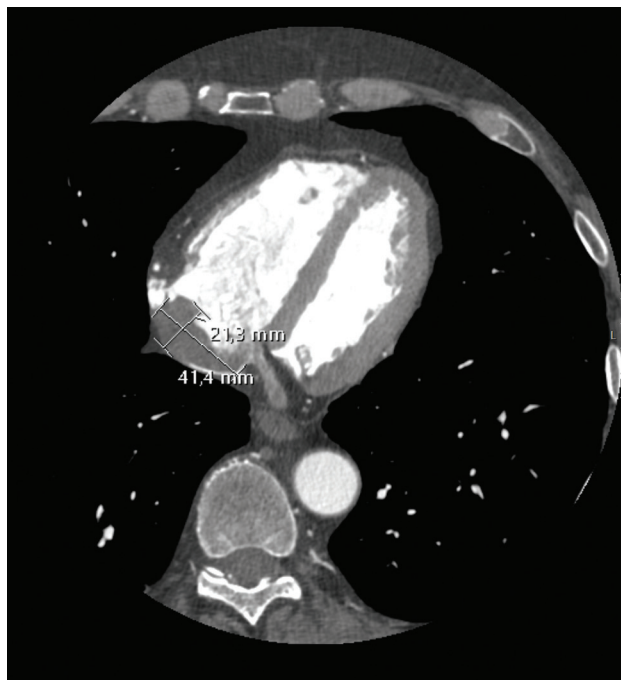


FIGURE 2. MSCT showing heart mass.

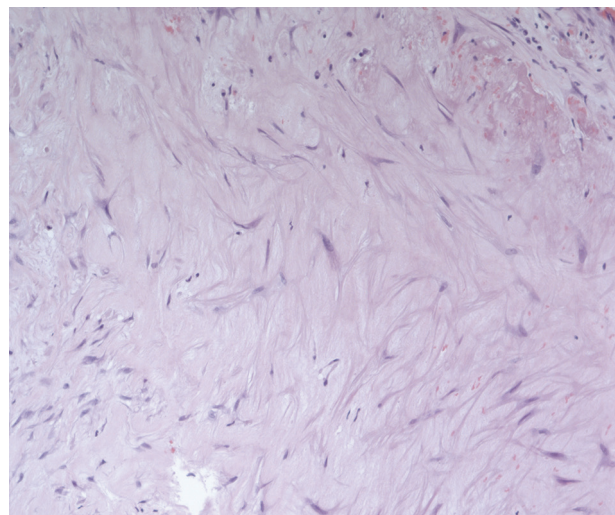


FIGURE 3. Pathohistological diagnosis – Myxoma, HP x 10.

LITERATURE

1. Griborio-Guzman AG, Aseyev OI, Shah H, Sadreddini M. Cardiac myxomas: clinical presentation, diagnosis and management. *Heart*. 2022 May 12;108(11):827-833. <https://doi.org/10.1136/heartjnl-2021-319479>
2. Ma G, Wang D, He Y, Zhang R, Zhou Y, Ying K. Pulmonary embolism as the initial manifestation of right atrial myxoma: A case report and review of the literature. *Medicine (Baltimore)*. 2019 Dec;98(51):e18386. <https://doi.org/10.1097/MD.0000000000018386>