

Chapter 5

Right Atrial Myxoma



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Abstract Right atrial myxoma accounts for 15–20% of cardiac myxomas and feet swelling is a rare manifestation. We present the case of an 59-year-old man with right atrial myxoma and progressive swelling of feet, and discuss the role of cardiac echocardiography in the diagnosis of myxomas.

Case Presentation

An 59-year-old man with a history of hypertension, hyperlipidemia, presented to the emergency department with progressive swelling of feet. Physical examination demonstrated normal and regular heart sounds, and normal respiratory rate and oxygen saturation. Echocardiogram described a well-circumscribed echo-dense pedunculated mass in the right atrial cavity, which was attached to the interatrial septum with short stalk and also with obstructing the tricuspid valve annulus, measuring 3.7×5.2 cm at its widest diameter (Figs. 5.1, 5.2, 5.3, 5.4, 5.5 and 5.6).

Discussion and Management

Myxomas are the most common type of adult primary heart tumor. Most myxomas arise sporadically (90%), and only about 10% are thought to arise due to inheritance.

About 10% of myxomas are inherited, as in Carney syndrome. Such tumors are called familial myxomas. They tend to occur in more than one part of the heart at a time and often cause symptoms at a younger age than other myxomas. Other abnormalities are observed in people with Carney syndrome include skin myxomas,

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Fig. 5.1 Large well-circumscribed echo-dense mass in the right atrial cavity

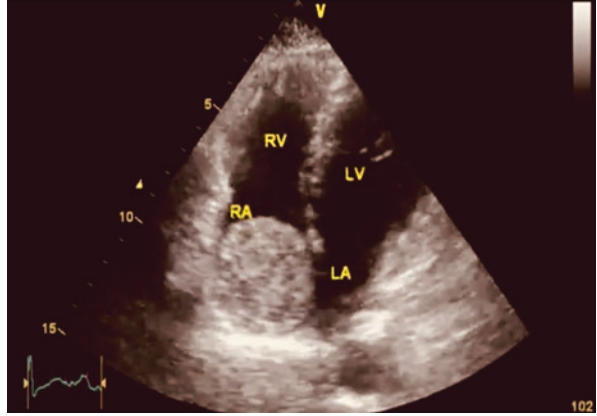


Fig. 5.2 Large well-circumscribed echo-dense mass that filled right atrial cavity

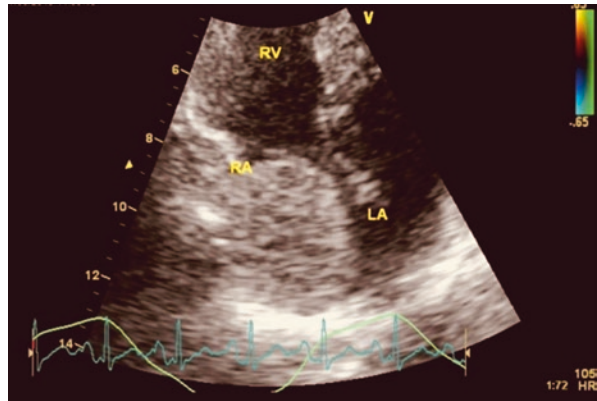


Fig. 5.3 Large well-circumscribed echo-dense mass that obstructing the tricuspid valve annulus

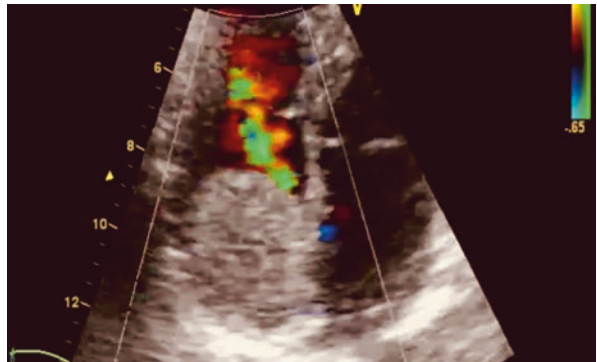


Fig. 5.4 Significant Doppler flow gradient due to large well-circumscribed echo-dense mass that obstructing the tricuspid valve annulus (Velocity: 2 m/s)

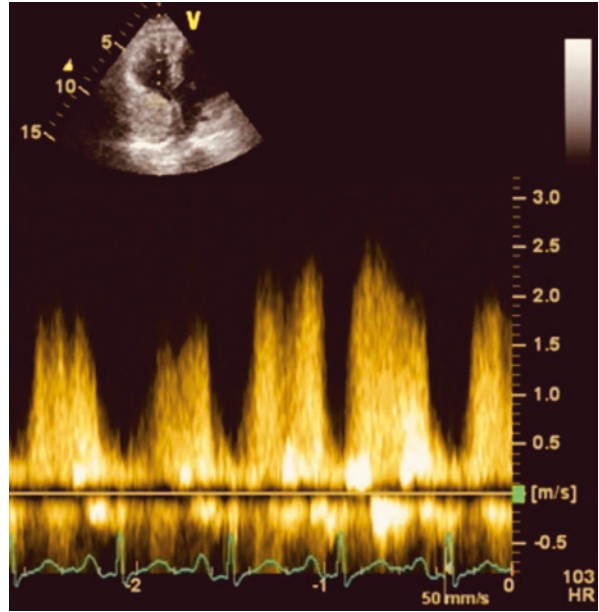


Fig. 5.5 3D view. Large well-circumscribed echo-dense mass in the right atrial cavity

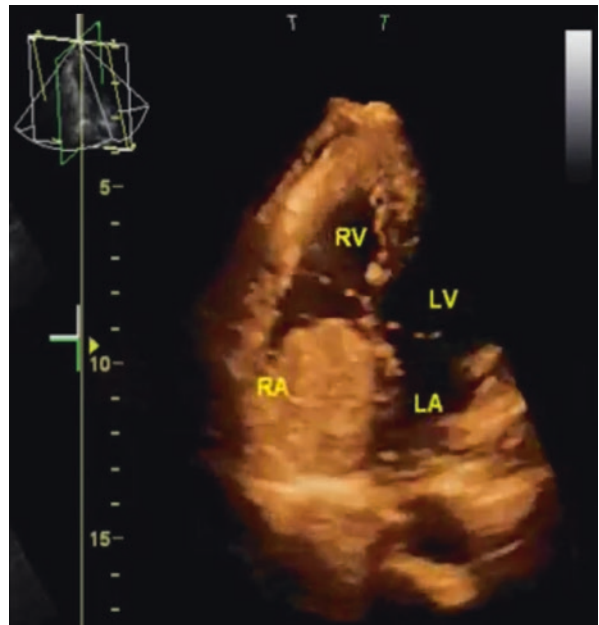
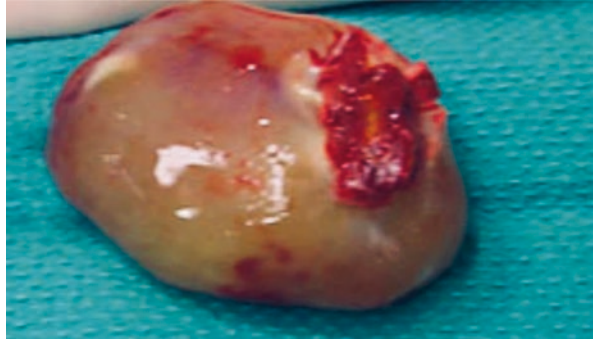


Fig. 5.6 Large extracted mass from RA in operating room



pigmentation, endocrine hyperactivity, schwannomas, and epithelioid blue nevi. Myxomas are more common in women than in men.

General symptoms of myxoma may also be present, such as:

- Cough
- Fever
- Cachexia—Involuntary weight loss
- General discomfort (malaise)
- Joint pain
- Blue discoloration of the skin, especially the fingers change color upon pressure, cold, or stress (Raynaud’s phenomenon)
- Clubbing—Curvature of nails accompanied with soft tissue enlargement of the fingers
- Swelling—any part of the body

The symptoms and signs of left atrial myxomas probably mimic the mitral stenosis. Right atrial myxomas rarely produce symptoms until they have grown to be obstructive on TV.

The CMR of our patient confirmed the myxoma too and tumor surgically removed there is no need for TV repair. He discharged very well.

Some patients will also need their mitral or tricuspid valves to repair or replaced. This can be done during the same surgery, also myxomas may come back if the surgery did not remove all of the tumor cells [1–6].

References

1. Tzani A, Doulamis IP, Mylonas KS, Avgerinos DV, Nasioudis D. Cardiac tumors in pediatric patients: a systematic review. *World J Pediatr Congenit Heart Surg.* 2017;8:624–32. <https://doi.org/10.1177/2150135117723904>.
2. Akhundova A, Samedov F, Cincin A, et al. Giant left atrial myxoma with dual coronary supply presenting with recurrent stroke. <http://link.springer.com/article/10.1007%2Fs00059-013-3999>

3. Pinede L, Duhaut P, Loire P. Clinical presentation of left atrial cardiac myxoma. A series of 112 consecutive cases. *Medicine (Baltimore)* 2001;80:159–172. http://journals.lww.com/mdjournal/Fulltext/2001/05000/Infected_Cardiac_Myxoma__Case_Report_and.2.aspx.
4. Selkane C, Amahzoune B, Chavanis N, et al. Changing management of cardiac myxoma based on a series of 40 cases with long-term follow-up. *Ann Thorac Surg.* 2003;76:1935–38.
5. Hoffmeier A, Sindermann JR, Scheld HH, Martens S. Cardiac tumors. *Deutsches Ärzteblatt Int.* 2014;111(12):205–11.
6. Karabinis A, Samanidis G, Khoury M, Stavridis G, Perreas K. Clinical presentation and treatment of cardiac myxoma in 153 patients. *Medicine.* 2018;97(37):e12397.