

## CLINICAL IMAGE

# Right atrial thrombus mimicking cardiac tumor in a neonate

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**Abstract**

Does the cardiac mass should be operated in neonates? When diagnosis of cardiac tumor or mass has been made, the surgical excision should not be delayed for prevention of life-treating complications

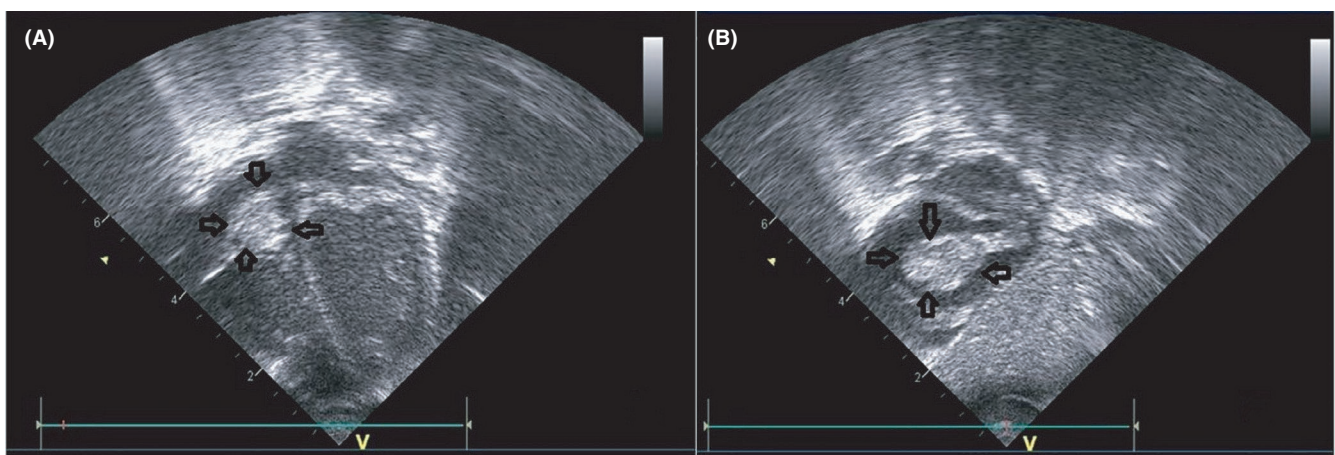
**KEYWORDS**

cardiac tumor, neonate, right atrium, thrombus

## 1 | INTRODUCTION

A 1-month-old female baby was admitted to our department for the management of a cardiac mass. Transthoracic echocardiography showed a pedunculated mass (7 × 13 mm) in the right atrium. The patient underwent surgical excision of the mass under deep hypothermic circulatory arrest. Pathology examination revealed the diagnosis of thrombus.

A 1-month-old female baby was admitted to our department for the management of a cardiac mass. She was asymptomatic. Transthoracic echocardiography (TTE) showed a mobile pedunculated mass (7 × 13 mm) attached to the inferior border of the interatrial septum adjacent to the coronary sinus and to the entrance of inferior vena cava (Figure 1A,B). A chest computed tomography was also performed, and the aforementioned findings were



**FIGURE 1** A and B, Transthoracic echocardiography. Mass in the right atrium (black arrow)

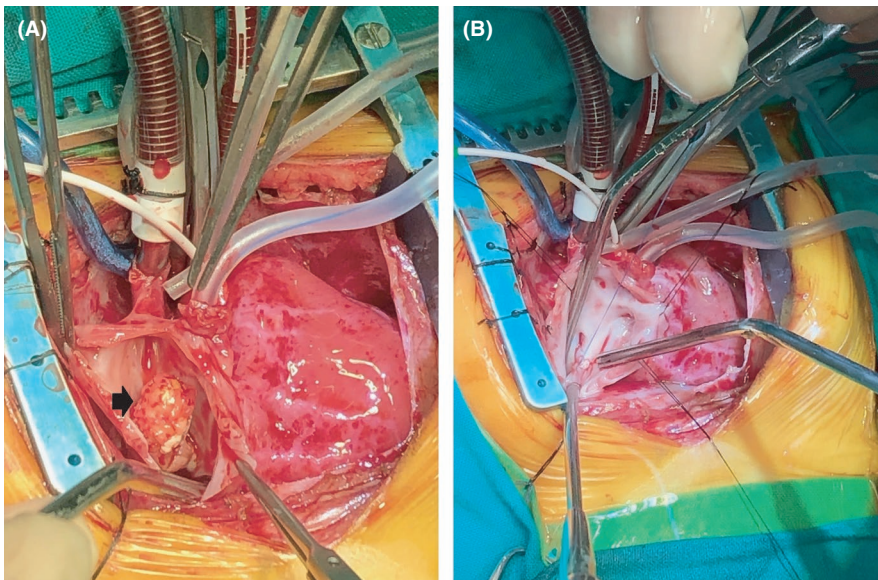
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**FIGURE 2** Chest computed tomography. Mass in the right atrium attached in the interatrial septum (black arrow)

confirmed (Figure 2A,B). There were no further abnormalities. Differential diagnosis included primary benign or malignant heart tumors and thrombus. The patient underwent a midline sternotomy under cardiopulmonary bypass and deep hypothermic circulatory arrest. The right atrium was opened, and the mass was totally excised (Figure 3A,B). Pathology examination revealed the diagnosis of organized thrombus. Postoperative course was uneventful, and she was discharged on postoperative day 10. Further diagnostic workup was negative regarding coagulopathy. She receives prophylactic anticoagulation. After one-year follow-up, her clinical and neurodevelopmental status is excellent without any TTE pathologic finding. Although primary cardiac tumors in neonates are extremely rare, rhabdomyomas, teratomas, and fibromas are the most common tumors in this age group.<sup>1</sup> In this case, a possible explanation of right atrial thrombus was thrombosis of umbilical vein. Surgical excision should not be delayed for prevention of superior or inferior vena cava or tricuspid valve obstruction with potential life-threatening complications.



**FIGURE 3** A and B, Intraoperative view. A = Thrombus in the right atrium (black arrow); B = Excised thrombus from the right atrium

## ACKNOWLEDGMENTS

All authors contributed equally in carrying out the medical literature and writing the manuscript. Published with written consent of the patient.

## CONFLICT OF INTEREST

None declared.

## AUTHOR CONTRIBUTIONS

GS and MK: took part in the care of the patient, medical literature search, writing original draft, review, and editing. T. K, A. K, and J. S.: anesthesiology management of patient. M. D, D. B., and N. G.: took part in the care of the patient and contributed equally in carrying out the medical literature.

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