

Cardiac Rhabdomyoma in Tuberous Sclerosis Complex: An Echocardiographic Study

Pradnya Brijmohan Bhattad, MD; Luigi Pacifico, DO; Neeta Shah, MD

This is a 58-year-old female with a history of tuberous sclerosis. Transthoracic echocardiogram images demonstrated a heterogeneous mass in the mid right ventricle attached to the septum and the moderator band (Figures 1-6).

The mass looked similar to what was seen on a transthoracic echocardiogram from a year prior. The patient had a history of tuberous sclerosis with a solitary left kidney and known renal angiomyolipoma. She had innumerable angiomyolipomas

in her left kidney without any normal renal parenchyma. She had undergone right nephrectomy for renal hemorrhage several years ago. She had no known previous history of cardiac disease and no symptoms attributed to the cardiac tumor noted on the echocardiogram. There were no features suggesting the cardiac mass was causing any obstructive pathology. One of the major differentials for this mass was thought to be cardiac rhabdomyoma, given the patient's history of tuberous sclerosis with known renal angiomyolipomas. Cardiac rhabdomyomas are usually associated with tuberous sclerosis complex, which is a genetic disorder characterized by hamartomas in multiple organs.

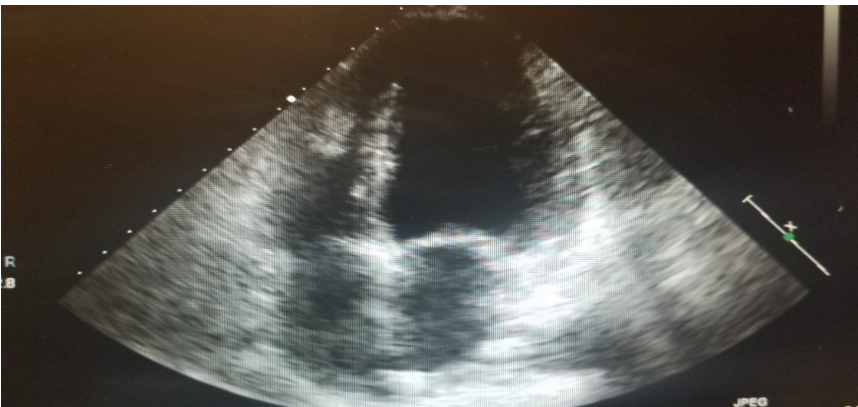


Figure 1. Heterogeneous mass in the mid right ventricle attached to the septum and the moderator band.

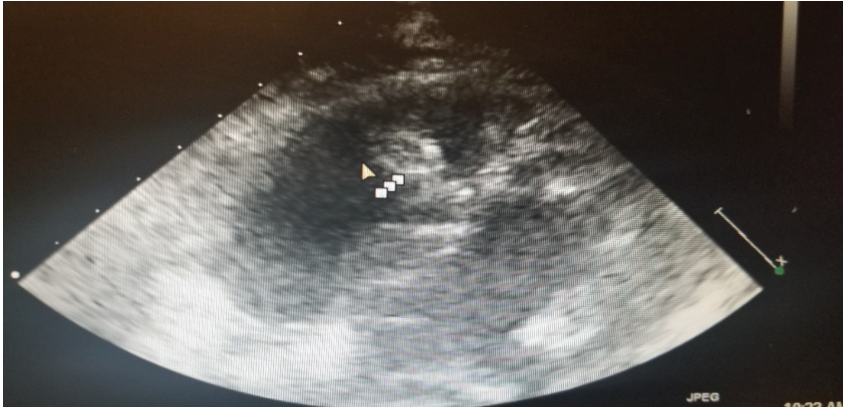


Figure 2. Mass well seated over the moderator band on apical 4-chamber view.

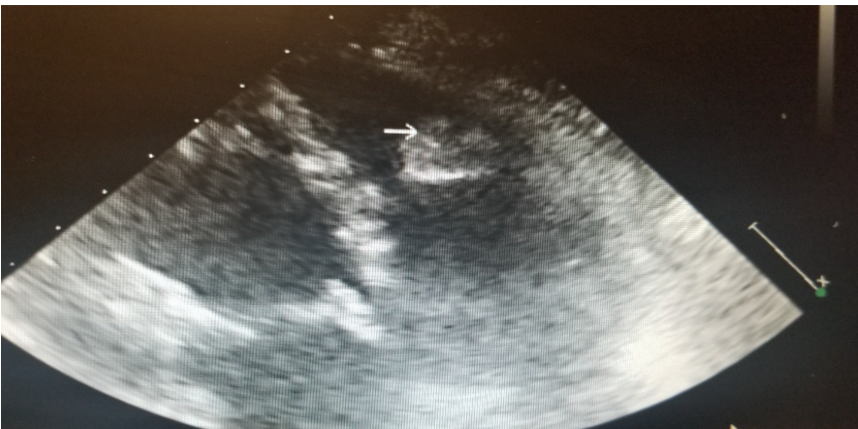


Figure 3. Mass in right ventricle attached to moderator band and septum.



Figure 4. 4-chamber views showing the same mass attached to the moderator band in the right ventricle.

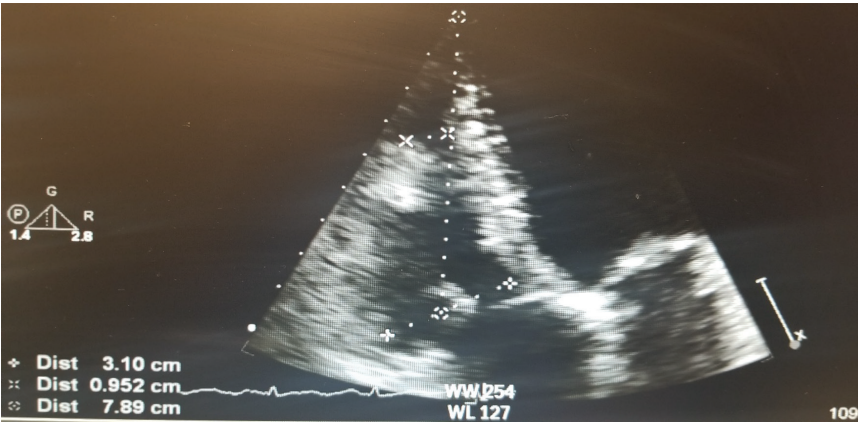


Figure 5. Mass in right ventricle attached to moderator band.

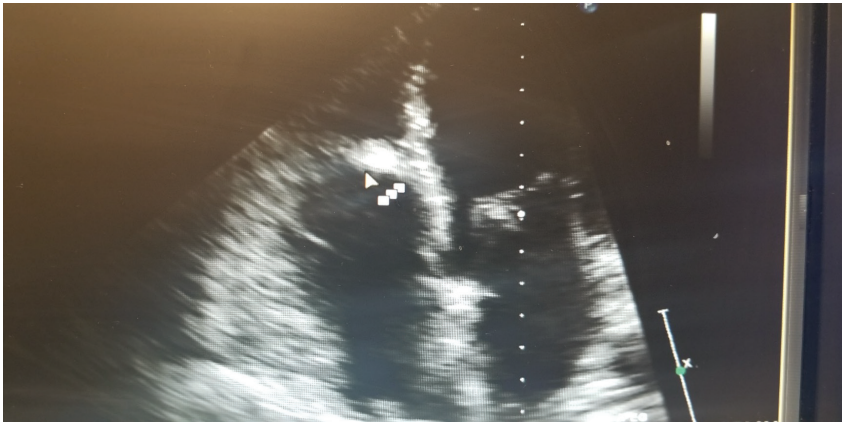


Figure 6. 4-chamber views showing the same mass attached to the moderator band in the right ventricle.

Rhabdomyomas may develop at any location in the heart, but the most common locations are ventricular and septal walls.

A conservative management approach was pursued for our patient. She had a solitary kidney that was completely replaced by innumerable angiolipomas, exposing her to further multimodal investigations to further characterize the cardiac mass would compromise her renal function, and she was completely asymptomatic from the tumor without any obstructive physiologic features. ■

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In the Literature: CLD Editor's Picks



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Incidence, Treatment, and Outcomes of Coronary Artery Perforation During PCI

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ABSTRACT: Objectives. To examine the incidence, treatment and outcomes of perforation, a potentially life-threatening PCI complication, during percutaneous coronary intervention (PCI). **Methods.** We examined the clinical, angiographic, and procedural characteristics, management, and outcomes of coronary perforation at a tertiary care institution. **Results.** Between 2014 and 2019, perforation occurred in 70 of 10,278 PCIs (0.7%).

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Craig Walker, MD, FACC, FACP

Although iodinated contrast is required in coronary and carotid interventions, most peripheral arterial and venous interventions can be performed utilizing CO₂ as a radiographic contrast agent or external duplex guidance to guide therapy. I will specifically discuss CO₂ angiography with tips and tricks to improve imaging, as I think this most nearly replicates how most procedures are performed today with iodinated contrast. By utilizing CO₂, many procedures can be performed with no iodinated contrast, and almost all procedures can be performed with much less iodinated contrast.

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