

## Intrathoracic Mesothelial Cyst in Pediatric Patient

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Pericardial cysts are rare congenital malformations formed by an aberrant fusion of the parietal recess during embryogenesis causing its persistence with consequent formation of a pericardial diverticulum. They are located in the cardiophrenic angle in 70% of the cases<sup>1</sup> and comprise an important group of mediastinal cysts. Despite their location, they are benign masses that represent 12 - 18% of primary mediastinal tumors with an estimated incidence of 1/100,000 cases.<sup>1</sup> They are usually asymptomatic lesions, unless they cause any compression on adjacent structures, and are often diagnosed incidentally by imaging tests. The overall estimated prevalence of cardiac neoplasms is 0.001 — 0.03% in studies conducted during necropsy<sup>2</sup>

and in pediatric patients cardiac tumors have an incidence of 0.027% — 0.08%.<sup>3</sup> Pericardial cysts are rare entities in both adults and in children. Computed tomography scans present the same attenuation as in unenhanced water after contrast administration.<sup>4</sup> Cardiac magnetic resonance imaging (CMRI) reveals well-defined, homogeneous paracardiac structure with low to intermediate intensity signal in T1-weighted sequences and hyperintense signal on T2 unenhanced on administration of gadolinium.<sup>1,2,4</sup> CMRI has been referred to as the best imaging test to characterize the cystic nature of these lesions and is richer in the characterization and evaluation of adjacent structures.

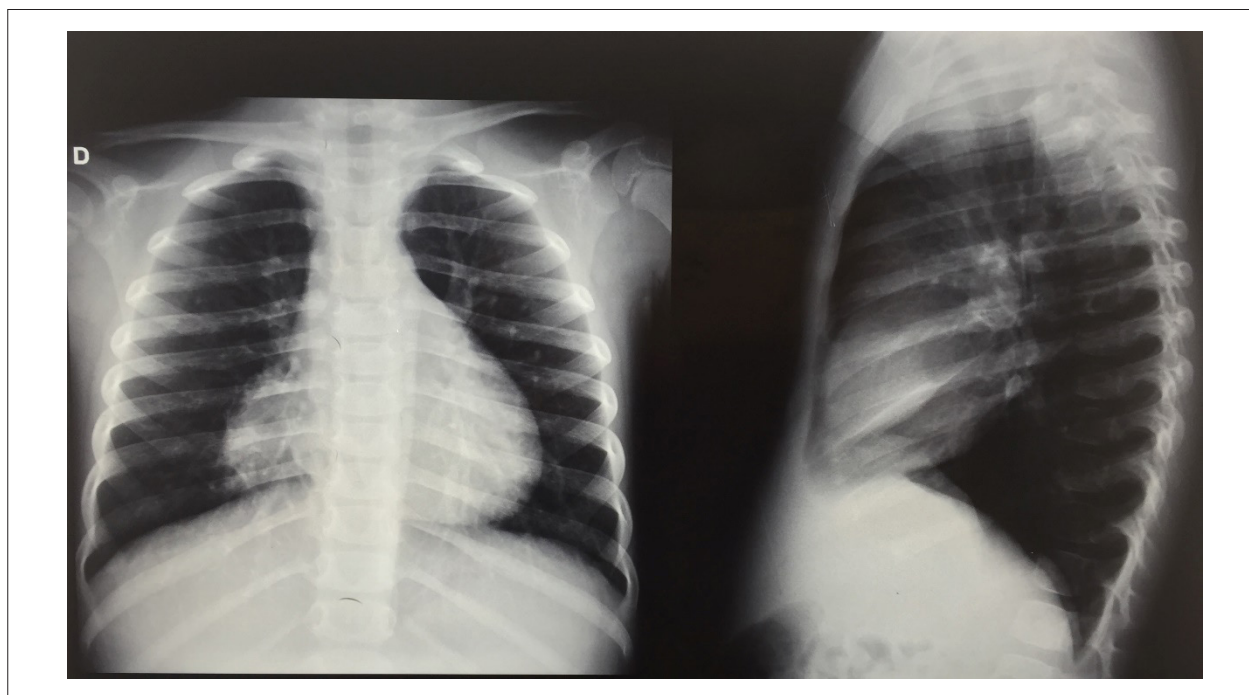


Figure 1 – Chest X-ray (PA and profile): oval opaque area in right cardiophrenic angle with corresponding profile image.

### Keywords

Mediastinal Cyst; Pericardium/abnormalities; Echocardiography; Magnetic Resonance Spectroscopy; Diagnostic, Imaging.

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### Authors' contributions

Research creation and design: Geber Jr. JC, Zaramello CR, Pedreira AMSR; Data acquisition: Geber Jr. JC; Data analysis and interpretation: Geber Jr. JC, Zaramello CR, Pedreira AMSR; Manuscript drafting: Geber Jr. JC, Zaramello CR; Critical revision of the manuscript as for important intellectual content: Geber Jr. JC, Zaramello CR, Pedreira AMSR.

### Potential Conflicts of Interest

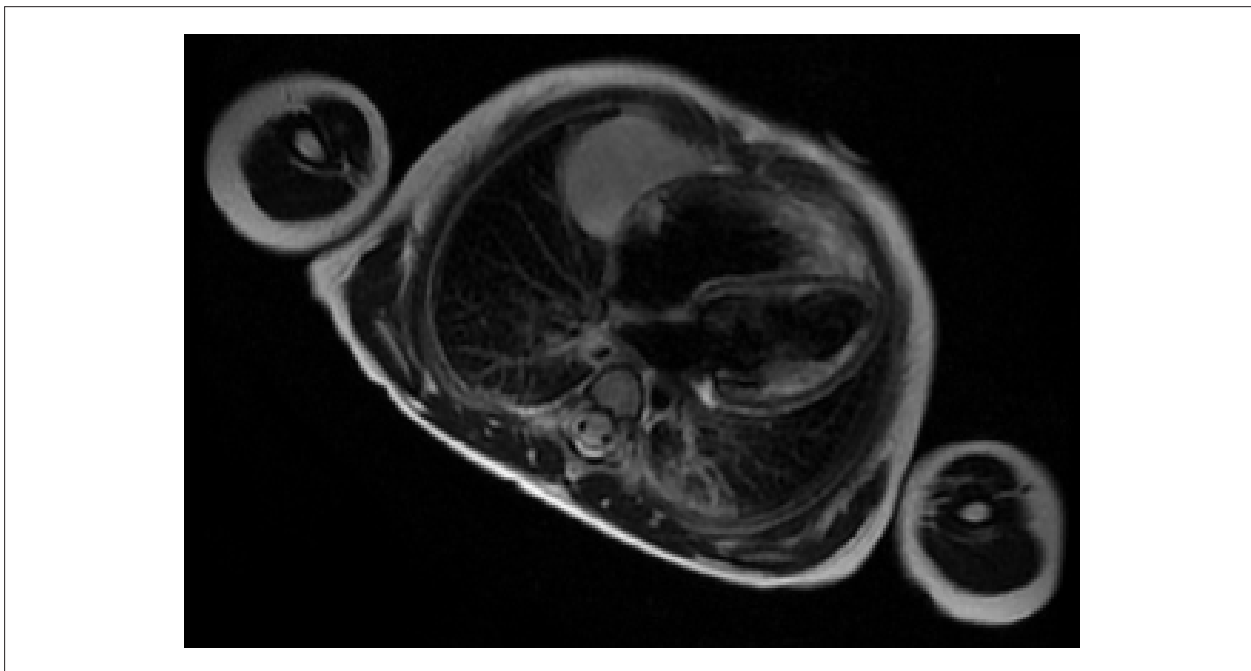
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### Academic Association

This study is not associated with any graduate program.



**Figure 2** – Cardiac magnetic resonance imaging: paracardiac mass with hyperintense signal on T2 and T1, unenhanced, located in right cardiophrenic recess, measuring 48 x 22 x 26 mm.

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