Congenital left atrial appendage aneurysm interfering with preexisting pericardial effusion in an infant with myopericarditis

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Left atrial appendage aneurysms (LAAAs) are usually congenital and are very infrequent anomalies of the heart. Differential diagnosis on echocardiography involves acquired left atrial aneurysms, extra pericardial herniation of portions of the heart, solid or cystic para-cardiac tumors and rarely, pericardial or extra-cardiac fluid collections. Here, we report a pediatric case of LAAA with concomitant myopericarditis who had a fatal course.

Case: A previously healthy, 7-month-old girl was admitted to a state hospital with complaints of cough and respiratory distress for several days. Because of cardiomegaly was noted on chest x-ray, echocardiography was performed and referred to our clinic for drainage of large pericardial effusion. At admission, she had tachypnea, tachycardia, and poor peripheral perfusion. Immediate echocardiography showed a large left para-cardiac chamber communicating with a normal-sized left atrial cavity via a wide neck, with evidence of spontaneous echo contrast (Figure). Thus, a giant LAAA was diagnosed. Pericardial effusion (12 mm) was also noticed around the left ventricle (LV). Cardiac markers were increased (BNP>35,000pg/ml, Troponin I: 0.79ng/ml, Troponin T: 0.35ng/ml) and LV function was mild-to-moderately impaired with an ejection fraction of 45%. So, she was also diagnosed as myopericarditis, and appropriate management was given. To better define the anatomical relationship of the aneurysm, a computerized tomography was performed. The aneurysm size was 39 × 29 mm and extended laterally toward the cardiac apex. Surgical resection of the aneurysm was considered. However, she had cardiac arrest after an episode of “torsades de pointes” that was unresponsive to resuscitation on the fifth day of admission.

Conclusion: Early recognition of an LAAA is important prognostically since the complications associated with this abnormality can be devastating. Compression of LV by LAAA may adversely affect LV systolic function. Presence of this anomaly is considered to be a predisposing factor for fulminant course of myopericarditis in our case.

Figure. Echocardiographic view showing a giant para-cardiac chamber communicating with a normal-sized left atrial cavity via a wide neck with evidence of spontaneous echo contrast.