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Case Report

# Congenital Left Atrial Aneurysm: A Case Report

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## Abstract

**Aneurysm of the left atrium is rare abnormalities. It can be congenital or acquired. Congenital aneurysm presents as isolated pathology. Presenting case was 10 years old girl suddenly developed dyspnea & mild cough, she had H/O recurrent exertional dyspnea which is relieved by rest since the age of 2 years. Left side chest bulge, movement restricted. Mediastinum shifted to right side, percussion note stony dull but chest x-ray shows homogenous opacity most of the left lung field and left costo-phrenic angle is not obliterated. No pleural fluid comes out during aspiration. Ultrasonography of chest suggests a ventricular aneurysm but CT scan of chest and echo- cardio graphy color Doppler suggests left atrial aneurysm. Because of the life threatening complication surgical excision is recommended.**

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## Introduction

Congenital left atrial (LA) intra pericardial aneurysm is a very rare anomaly. Only 50 cases have been reported.1 It was first described by Semans and Taussig 2 in 1938. Patient usually remain asymptomatic until 2nd to 4th decades when supra ventricular arryythmias or systemic embolization may developed.3 The age of presentation varies widely, from 1 month to 66 years. The appearance of an aneurysm as an isolated pathology, without evidence of predisposing, inflammatory or degenerative processes, indicates an acquired aneurysmal dilatation of the left atrium is seen secondary to inflammatory processes.

The diagnosis is suggested by chest radiography and can be confirmed by echocardiography.4 Once recognized aneurysmectomy should be performed to prevent life threatening complications.5

## Case study

A 10 years old girl presented at pediatrics department of Rajshahi Medical College Hospital with mild cough and dyspnoea for 7 days.

There was no history suggestive of congestive heart failure, rheumatic heart disease or thromboembolic episodes. No history of contact with TB patients, but she had history of recurrent exertional dyspnoea which is relieved by rest on sitting position since the age of 2 years.

On examination the patient was dyspnoeic mildly pale, BCG mark present, cyanosis & edema absent.

Pulse 105/ min, low volume, irregularly irregular. Blood pressure 80/50 mmHg, respiratory rate 30/min, temperature 98.5F.

Left sided chest bulged, movement restricted, mediastinum shifted to right side, percussion note

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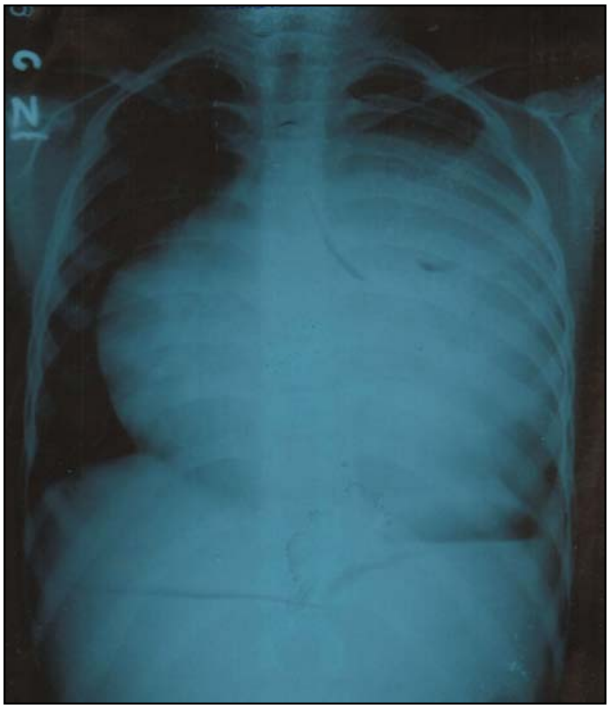
stony dull, breath sound absent on left side, no added sound found. Heart Rate 152/min, irregularly irregular, pulsus deficit 47/min, heart sound normal, no added sound. Other systemic examination reveals normal.

**On investigation**

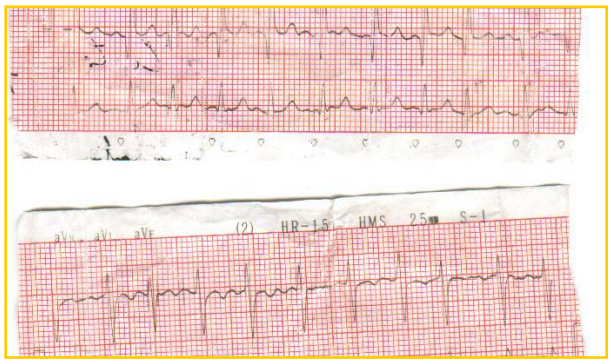
Complete blood count: Hb: 10.2 gm/dl, Total count of WBC : 12,000/cumm, DC: N-65%, L-31%, E-02%, M-02%, B-00%, ESR : 40 mm in 1st hour.



Chest radiograph shows a large homogenous opacity in the most of left lung field with mediastinum shifting to the right side but left sided costo-phrenic angle is not obliterared.

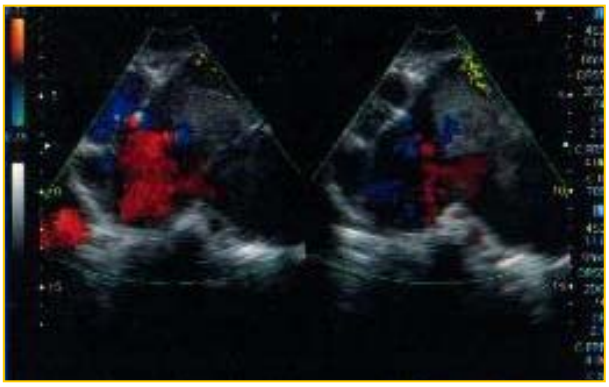
**USG of chest:** A very large cystic lesion is seen in the left side of chest pushing the heart towards right side. A communication seems to present with ventricle.

**ECG**




ECG shows atrial fibrillation, P- wave absent.

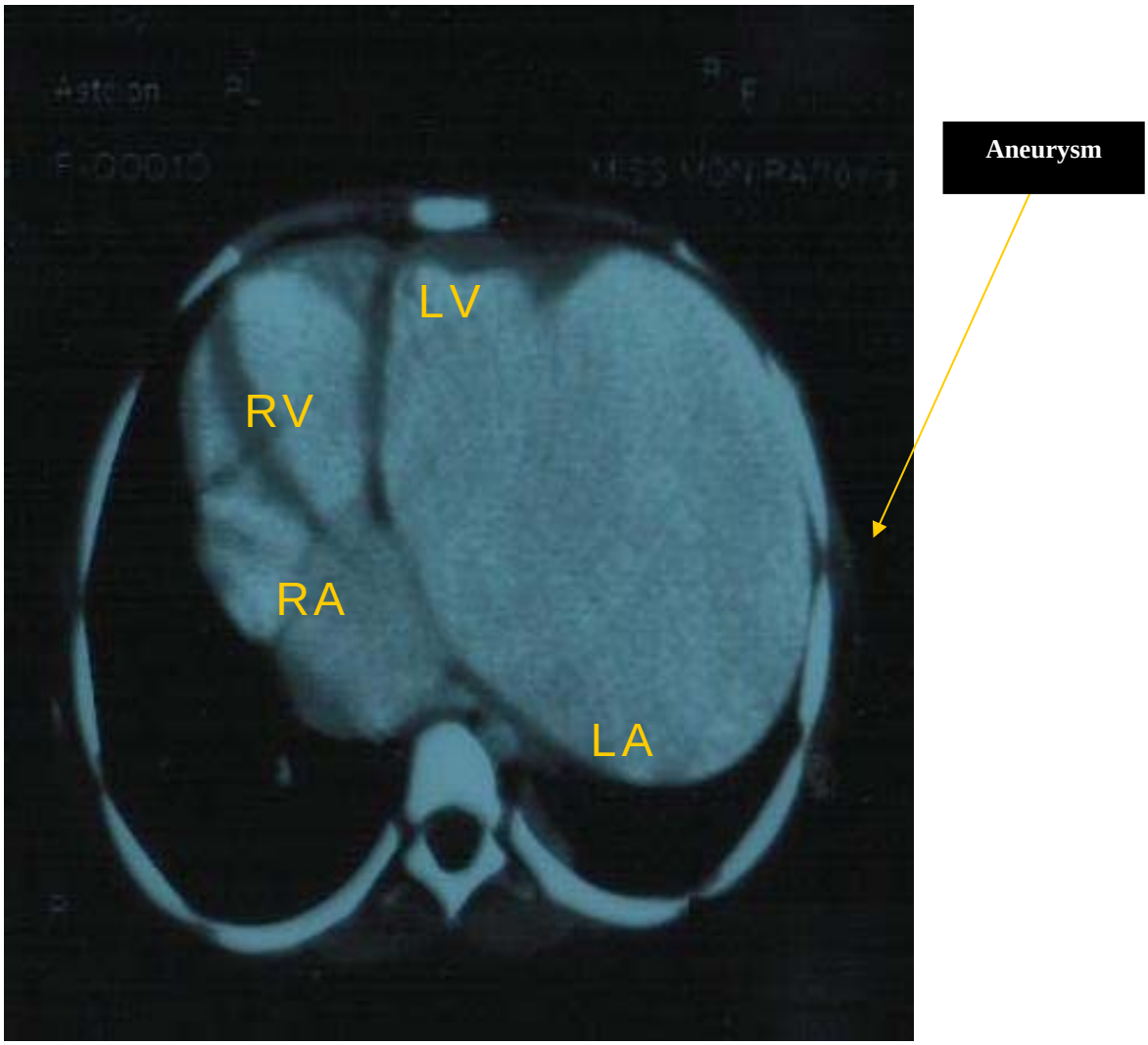
Ecocardiography- colour dopler

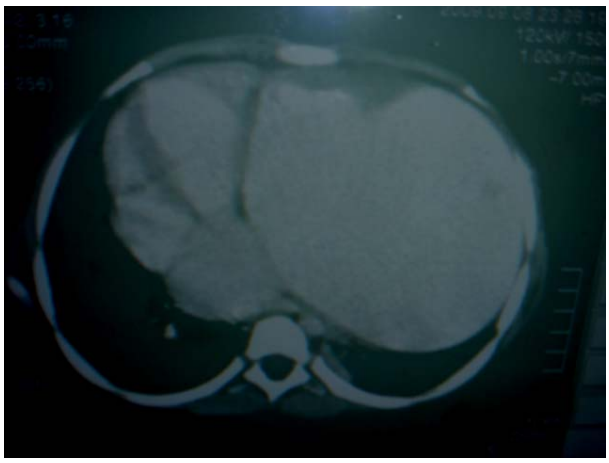


Giant aneurysm of LA with spontaneous echo contrast

ECHO: A large Aneurysm 8 cm is width communication with left atria.

CT scan of chest



CT scan with contrast: A large contrast filled cystic structure of size about 11 X 9.5 cm is noted at the left side of heart. Which is continuous with the left atrium compressing the left lung with contra lateral mediastinal shifting.

## Discussion

Congenital aneurysm of the left atrium is a rare condition. Mean age of presentation is 26 years.6 Only one third of patients are symptomatic before 10 years, as the aneurysm becomes obvious only after years of enlargement. Usual modes of presentation are an abnormal chest radiograph, systemic embolization, and supraventricular

arrhythmias, either alone as in combination.3 In our case patient is dyspnoeic, chest radiograph is abnormal and electrocardiogram shows supraventricular arrhythmias. Which is found in 70% of patients.3

Characteristic features on echocardiography described by Faole and Colleagues were also noted in this case.7 Origin from an otherwise normal left atrium, well defined communication with the atrium, position within the pericardium and distortion of the left ventricular free wall by the aneurysm. A mediastinal mass ruled out by computed tomography of the chest.

Surgical excision of the aneurysm is recommended because of the risk of embolic complications and supra ventricular arrhythmias. Surgery is performed through a left thoracotomy or median sternotomy.

## Conclusion

Prompt surgical management will obviate the risk of devastating complication of this rare problem.

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