

Don't forget that ventricular aneurysm is one of the rare mechanical complications of NSTEMI, especially in patients with recurrent ventricular arrhythmia.

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True left ventricular aneurysm is one of the rare mechanical complications after acute myocardial infarction especially post NSTEMI. The natural course leading to the formation of a ventricular aneurysm involves a full-thickness infarct that has been replaced by fibrous tissue which is uncommon with NSTEMI.

In the absence of chest pain, recurrent ventricular arrhythmia should raise our suspicion of this complication. Close Echocardiography monitoring help early detection and treatment of this complication.

Case presentation:-

A 73-year-old smoker male, presented with typical chest pain and was admitted to AMU as a case of NSTEMI on ACS protocol awaiting coronary angiography. (no specific ECG changes with significant troponin rise). Due to broad mediastinum in the initial CXR, CT angiography was done which was reported as a normal study.

From 3rd day of admission, The patient was pain free but Start to develop recurrent short runs of ventricular bigeminy arrhythmias which spontaneously reverted to sinus rhythm. Unfortunately, due to a busy cardiology schedule, Echo and coronary angiography were postponed and the patient stayed in AMU as no available CCU bed.

Over the next 3 days patient remained pain-free in AMU, We continued treating with ACS protocol awaiting inpatient Echo and coronary angiography. The Patient developed three further attacks of self-limited short runs of ventricular arrhythmia that was not explained as he was pain-free, and no abnormal blood Ix could explain this arrhythmias.

Echocardiography was done on day 6 of admission revealed, aneurysmal dilatation of mid-antero-lateral and infero-lateral segments, the aneurysm opening measures 4.8cm. Other wall segments are preserved, Circumferential pericardial effusion was noted with No features of hemodynamic compromise.

The Patient was transferred for cardiothoracic surgical intervention of the true aneurysm.

Conclusion:-

Don't forget the mechanical complications of MI. A true myocardial aneurysm is very rare with NSTEMI, but recurrent unexplained ventricular arrhythmia should rise our suspicious about it. Close Echocardiography monitoring is helpful in this situation as it helps in early detection and treatment of this complication.

Reference:-

1.Kutty RS, Jones N, Moorjani N. Mechanical complications of acute myocardial infarction. Cardiol Clin. 2013 Nov;31(4):519-31, vii-viii. - [PubMed](#)



Figure 1: Ventricular arrhythmia

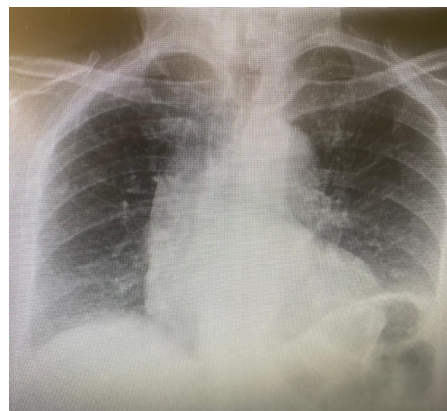


Figure 2: Broad mediastinum in CXR

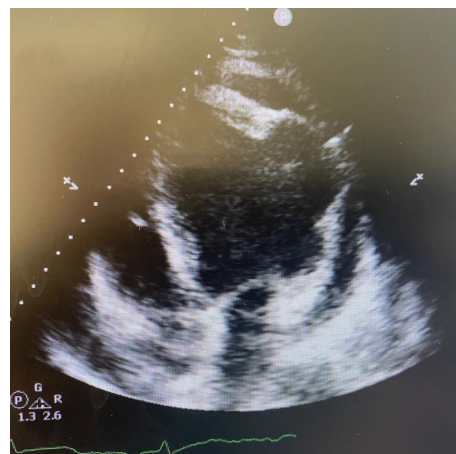


Figure 3: Apical 4 chamber view: left ventricular aneurysm