

CASE REPORT

Seventy-year-old patient survives a giant apical LV pseudoaneurysm for 8 years

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LV pseudoaneurysm is a rare postmyocardial infarction complication [1], and occurs as a result of free LV wall rupture contained by adherent pericardium [2]. This pseudoaneurysm carries a high risk of rupture and surgical treatment is often indicated [3]. Chest X-ray and coronary angiography can give a clue to this serious diagnosis [4, 5]. Ischemic cardiomyopathy with heart failure is the usual consequence in nonruptured pseudoaneurysms, but it is not the common presentation [6].

Case report

A 70-year-old male patient, not known to be diabetic nor hypertensive, has a history of CAD as MI of 8 years duration and received thrombolytic therapy, then underwent coronary angiography (2006) and refused PCI to continue on medical treatment. He was presented to us with heart failure symptoms, and his ECG shows evidence of an old anterior myocardial infarction. 2D echocardiography was done, but he has a bad echo window with only the subcostal window accessible which revealed big apical LV aneurysm, and EF was 40% (Fig. 1). Chest X-ray revealed an abnormal apical bulging with calcified border (Fig. 2). Revision of his old coronary angiography revealed the same calcific cardiac border (Fig. 3). MSCT was done and revealed a giant apical pseudoaneurysm with a big thrombus inside and calcific border (Figs. 4 and 5). The patient

Key clinical message

The risk of rupture of LV pseudoaneurysm is still not well understood, and ischemic cardiomyopathy with heart failure is a common consequence. Simple investigations like chest X-ray can give clue to such a serious diagnosis.

Keywords

Chest X-ray, heart failure, MSCT, pseudoaneurysm.

refused surgical treatment and continued on antifailure treatment and regular follow-up.

Discussion

Heart failure is one of the most common causes of death post-MI [7], however, mechanical complications carry a more aggressive course as mortality reaches about 60% in LV wall rupture [8]. Detection of these

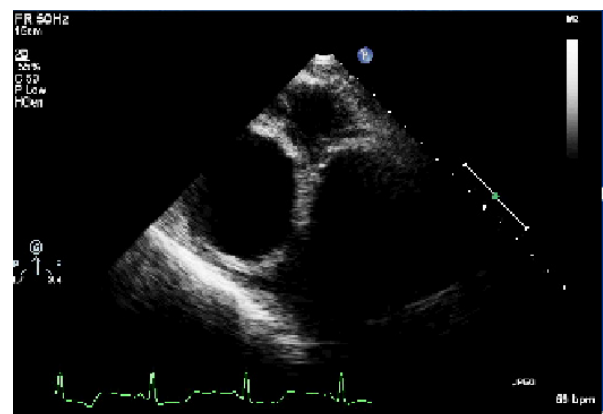


Figure 1. 2D Echocardiography, subcostal window, shows a big apical LV aneurysm.

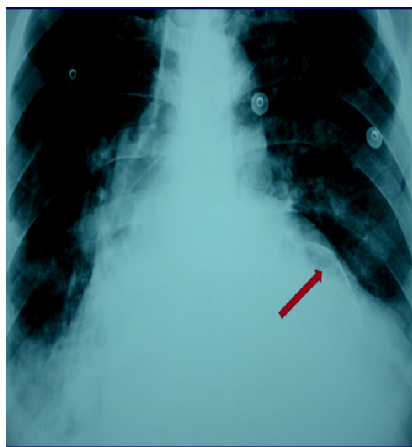


Figure 2. Chest X-ray P-A view shows cardiomegaly, abnormal cardiac contour with calcified border (arrow).

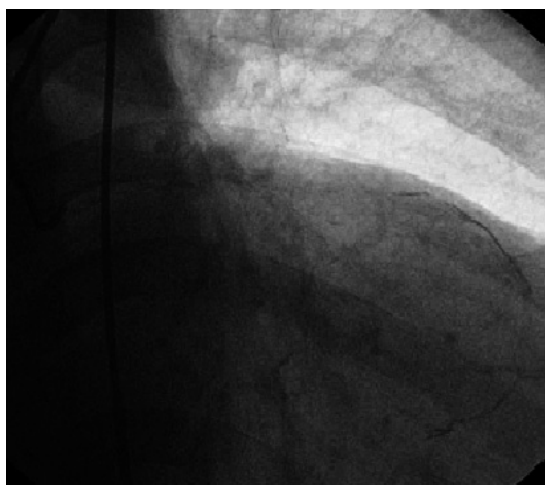


Figure 3. Coronary angiography RAO caudal projection shows calcified cardiac border.

complications is carried usually easily using echocardiography, unfortunately in our case poor echo window limits early diagnosis of this serious complication. The Chest radiograph is cheap, noninvasive, rapid investigation that, in our case, clarifies the presence of abnormal LV contour suggesting the presence of an LV aneurysm. Revising patient's old coronary angiography reveals also the calcified border of this aneurysm which was overlooked 8 years ago. MSCT was helpful in our case for full characterization of this pseudoaneurysm. The survival after pseudoaneurysm is an unclear issue with few reported cases of similar prolonged survival after LV pseudoaneurysm [9]. Our patient presented with heart failure symptoms which are the commonest presentation of this complication [10]. CXR is not a strong diagnostic

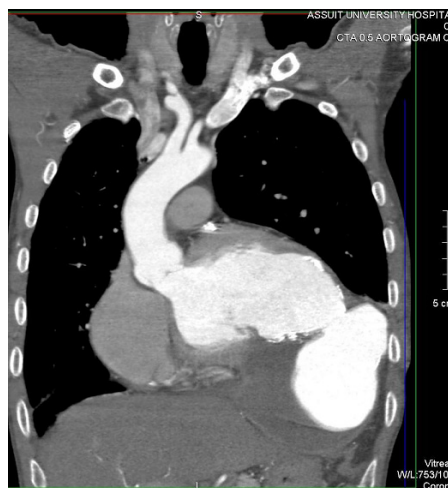


Figure 4. MSCT coronal section shows a big LV apical pseudoaneurysm with a big thrombus inside it.



Figure 5. MSCT, Volume rendering, 3D reconstruction of the big LV apical pseudoaneurysm.

procedure as echocardiography, but its availability and a high degree of specificity in the diagnosis of cardiomegaly [11] would be very beneficial for some serious conditions like our case.

Conclusion

Simple investigations such as chest radiograph and looking behind coronaries in coronary angiography can easily guide us to serious complications as LV pseudoaneurysm. Natural history after LV pseudoaneurysm is not well established especially concerning risk of rupture.

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Supporting Information

Additional Supporting Information may be found in the online version of this article:

Video S1 Coronary Angiography, RAO caudal view, showing significant LAD mid-segmental lesion and calcified cardiac border.

Video S2 Echocardiography, subcostal window, showing big apical aneurysm with big thrombus inside.