

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: <http://www.elsevier.com/locate/crvasa>

Case report

Unexpected echocardiographic findings in one vessel coronary artery disease

Olga Nedeljković-Arsenović^{a,*}, Bosiljka Vujisić-Tešić^{a,b},
Olivera Ninković-Mrđenovački^c, Marija Boričić-Kostić^b,
Ivana Nedeljković^{a,b}, Biljana Parapid^b, Marko Banović^{a,b}

^a Faculty of Medicine, University of Belgrade, 11000 Belgrade, Serbia^b Clinic of Cardiology, Clinical Center of Serbia, 11000 Belgrade, Serbia^c Institute for Public Health of Sabac, 15000 Sabac, Serbia

ARTICLE INFO

Article history:

Received 2 December 2016

Accepted 6 January 2017

Available online xxx

Keywords:

Myocardial infarction

Left ventricular aneurysm

Bacterial endocarditis

Alcohol abuse

ABSTRACT

Introduction: Left ventricular aneurysm is one of the most significant complications of myocardial infarction and it is thought to develop in 5–10% of all patients with acute myocardial infarction.

Case report: A 50-year-old male patient with a history of chronic alcohol abuse and risk factors for coronary heart disease was treated twice in the regional hospital center because of heart failure. Initially, echocardiography was not performed. Three years later he was admitted to the Urgent Center with a chief complaint of chest pain. He was evaluated by echocardiography, which showed a scar affecting the inferior wall of the left ventricle with an aneurysm on its basal portion which contained a thrombus. The patient also underwent transesophageal echocardiography which confirmed that there was a rupture of the commissural chordae tendineae of the posterior mitral leaflet with severe regurgitation. In consideration of these findings, the patient was referred to undergo coronary angiography, which revealed single vessel coronary artery disease. The patient subsequently underwent cardiac surgery for mitral valve replacement with an artificial valve, along with repair of the left ventricular aneurysm.

Conclusion: With consideration of his history of alcohol abuse, our patient likely experienced a silent inferior-basal myocardial infarction complicated by the development of an aneurysm of the ventricular wall. Subacute bacterial endocarditis may have been a contributing factor leading to infarction and rupture of the mitral valve chordae tendineae, and causing symptoms of heart failure and chest pain in our patient.

© 2017 The Czech Society of Cardiology. Published by Elsevier Sp. z o.o. All rights reserved.

* Corresponding author at: Faculty of Medicine, University of Belgrade, Dr Subotića 8, 11000 Belgrade, Serbia.

E-mail address: olganedeljkovic@gmail.com (O. Nedeljković-Arsenović).<http://dx.doi.org/10.1016/j.crvasa.2017.01.002>

0010-8650/© 2017 The Czech Society of Cardiology. Published by Elsevier Sp. z o.o. All rights reserved.

Introduction

Left ventricular aneurysm (LVA) is one of the most important complications of myocardial infarction (MI) and is thought to develop in five to ten percent of all patients with acute MI. LVA is defined as an area of the ventricle in which there is only thin scar tissue devoid of muscle. The area is well-delineated and characterized by its walls bulging outward during systole expansion [1].

Other than MI, possible etiologies of LVA include hypertrophic cardiomyopathy, trauma, iatrogenic injury, Chagas' disease, sarcoidosis, mucopolysaccharidosis, congenital LVA, and idiopathic causes. Medical history, clinical examination, and laboratory test results may be used to evaluate for these conditions [2].

The case we present describes a patient who developed a true ventricular wall aneurysm, but is unusual because of the posterior location of the aneurysm. Only 3% of aneurysms, based on data, are posterior or inferior [3]. These data are from an in vivo series, different from an autopsy series that shows an equal distribution of aneurysms respectively in the anterior and posterior locations [4].

Case report

We present a case of a 50-year-old man with a history of chronic alcohol abuse and other risk factors for coronary heart disease who was admitted to our Urgent Center with a complaint of chest pain. Three years previously, he was treated twice in the regional hospital center because of heart failure. Echocardiography had not been performed then. However, with the current admission, he was examined by echocardiography which revealed the presence of a scar of the inferior left ventricular wall with an aneurysm on its basal portion containing a thrombus (Fig. 1). The patient also underwent transesophageal echocardiography examination

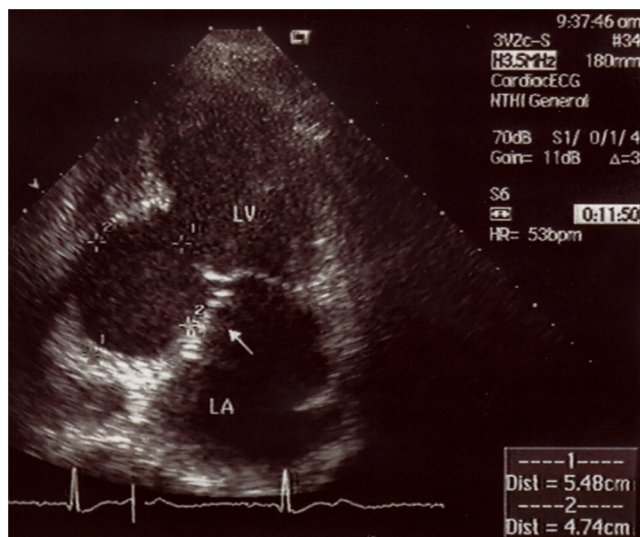


Fig. 1 – Transthoracic echo showing aneurysm of basal portion of the inferior wall.

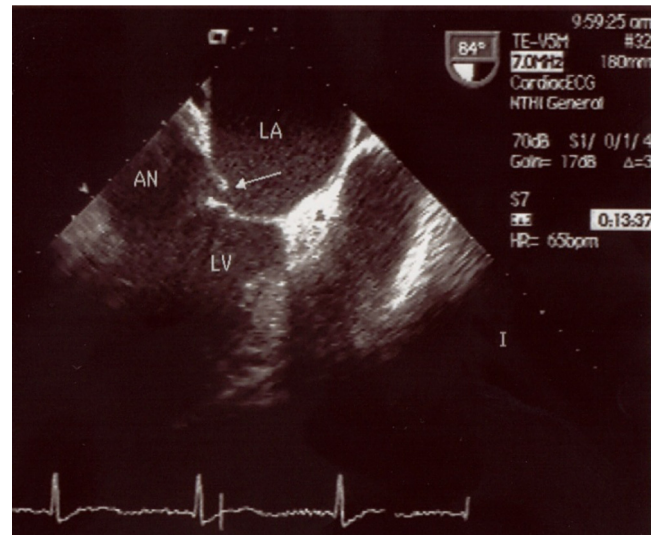


Fig. 2 – Transesophageal echo showing rupture of commissural chordae of the posterior mitral leaflet.

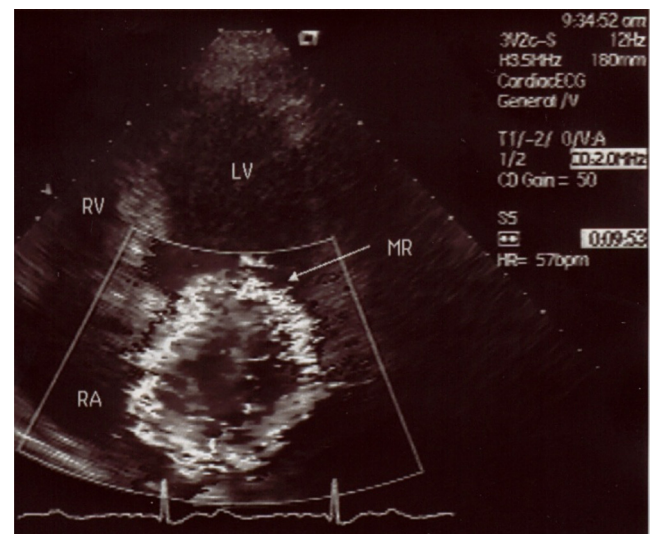


Fig. 3 – Transthoracic echo-severe mitral regurgitation.

which indicated that there was a rupture of the commissural chordae tendineae with a loss of support for P3 segment of posterior mitral leaflet (Fig. 2). Severe mitral regurgitation was seen along with an enlarged left atrium (Fig. 3). On evaluation of his EKG, there was a finding of scar affecting the inferior wall (Fig. 4). As a result of these unexpected findings seen by echocardiography, the patient was referred to undergo coronary angiography, which revealed that the first diagonal artery (D1) was obstructed up to 80% and the right coronary artery and circumflex coronary artery (Cx) were without any stenosis (Fig. 5). The patient was sent for cardiac surgery, during which the mitral valve was replaced by an artificial valve and the left ventricular aneurysm was repaired by a reconstructive technique called the Dor procedure (pioneered by Dr. Vincent Dor). Postoperative echocardiography revealed good mobility of the artificial valve with sufficient gradient

Download English Version:

<https://daneshyari.com/en/article/5577854>

Download Persian Version:

<https://daneshyari.com/article/5577854>

[Daneshyari.com](https://daneshyari.com)