Submitral Left Ventricular Aneurysm: A Rare Disease in Xanthoderm

Wen-zong Luo, MD and Yi-ming Ni, MD

Submitral aneurysm is a rare cardiac disease, predominantly being diagnosed among the black Africans. A Chinese adult was admitted as submitral aneurysm of the left ventricle in our department recently. We present this case for its rarity among Xanthoderm.

Keywords: submitral aneurysm, left ventricle

Introduction

Submitral aneurysm is initially reported in Nigeria in 1962,1) and this disease is more prevalent among the African nations. While this racial predilection is relative, patients of other races from different parts of the world have been described. We report a young Chinese adult with a large submitral aneurysm of left ventricle due to its rarity among Xanthoderm.

Case Report

A Chinese male, 43-year-old, was referred to our department with a month history of occasional dull pain in the chest area, no palpitation or breathlessness was complaint. He told us that he had a history of severe septicemia when he was 5 years old, but denied history of trauma or tuberculosis. The physical examination was nothing special. The electrocardiogram showed no abnormality. The X-ray indicated an enormous calcified bulge in the left heart border. The transthoracic echocardiogram revealed a massive tumor at the submitral annulus area. Doppler examination indicated that this tumor is communicating with the left ventricular cavity through a neck measured about 1.8 cm wide, forming a paraannular aneurysm. During the further computed tomography (CT) scan, a large calcified aneurysm was noted arising from the posterolateral wall of the left ventricle with a neck situated close to the mitral valve (Fig. 1). The preoperative cardiac catheterization showed the three vessels were normal. The laboratory findings were completely unremarkable.

Considering that a ventricular aneurysm close to the mitral annulus is a difficult situation and often the calcium is very friable and difficult to deal with. We suggest the patient medical management with anti-anginals and anticoagulants and take noninvasive examinations, such as echocardiography or CT, for a close follow-up. He has since remained 6-month asymptomatic from the discharge.

Discussion

Submitral aneurysms are not very uncommon among the African blacks. But only occasional cases have been described in the population outside the African continent. Ruiz reported a case in a white man who had an asymptomatic submitral aneurysm in 1992.2) They have also been described in India.3) Its etiology is unknown but appears to be related to the infection of tuberculosis, trypanosomiasis and some other infectious factors.4) Besides, genetic cause, congenital defect in the mitral valve ring, are most frequently being associated with this disorder. To our patient, he appeared to us presented with
a calcified aneurysm, which brings us to the presumed congenital weakness in the ventricular wall. And his history of severe septicemia also suggested the role of infection and inflammation.

Patients with submitral aneurysm may stay asymptomatic or exhibit varied clinical manifestations. They may present with mitral insufficiency with or without left ventricular dysfunction, or myocardial ischemia secondary to the compression of the left coronary arteries, thromboembolism and arrhythmias. Though the surgical intervention is the only method to treat with this disease, it carries a significant mortality. In Africa, most patients with submtral aneurysm are managed medically, and very few benefit from surgery that comports commonly pericardial patch repair and valvuloplasty. Through taking oral medical treatment, our patient showed an efficient clinical effect. In conclusion, we are reporting the case of a Chinese adult with submitral aneurysm presenting with no sign of mitral valve insufficient of heart failure.

Disclosure Statement

Authors do not have conflict of interest.

References