

Revista Portuguesa de **Cardiologia**

Portuguese Journal of **Cardiology**

www.revportcardiol.org



IMAGE IN CARDIOLOGY

When a heart stops a bullet...

Quando um coração pára uma bala...

Dimitrios Afendoulis^{a,*}, Matthaios Didagelos^b, Maria Moutafi^a, Nikolaos Papagiannis^a, Petros Voutas^a, Athanasios Kartalis^a



^b Cardiology Department, AHEPA University Hospital of Thessaloniki, Thessaloniki, Greece

Received 10 August 2021; accepted 24 October 2021 Available online 15 October 2022

A patient, trying to commit suicide, shot himself by contact and was transferred to the emergency department with dyspnea and hypotension. Two foreign body entry points were discernible in the patient's left anterior thoracic wall, with minor bleeding. An immediate bedside transthoracic echocardiogram revealed an echolucent structure wedged at the apical myocardium and a large pericardial effusion

(Figure 1A and Video). The chest X-ray that followed revealed a left-sided pneumohemothorax and two bullets, one at the site of the cardiac apex (Figure 1B1 and C1) and the second at the spinous process of the 12th thoracic vertebra (Figure 1B2 and C2). Emergent cardiothoracic surgery was deemed necessary to remove the bullet from the heart, fortunately with no complications. The patient

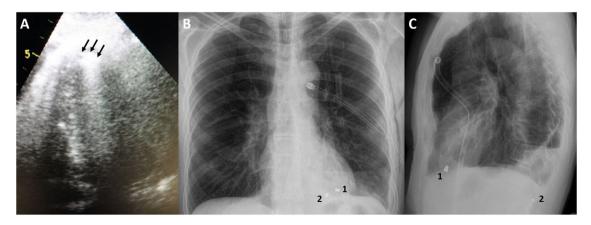


Figure 1 (A) Four-chamber view, transthoracic echocardiogram, showing the echolucent bullet at the apical myocardium with acoustic shadow (arrow). (B and C) Chest X-ray depicting a left-sided pneumohemothorax and two bullets, one at the site of the cardiac apex (B1 and C1) and the second at the spinous process of the 12th thoracic vertebra (B2 and C2).

^{*} Corresponding author.

E-mail address: dimitrisafendoulis@yahoo.com (D. Afendoulis).

recovered ten days after the event and received close psychiatry follow-up. Our patient was lucky to survive because penetrating cardiac traumas caused by gunshots usually result in devastating fatal injuries. However, in our case the embolization and wedging of the bullet directly in the myocardium of the left ventricle, without causing perforation, was a damage-limitating factor, giving time for surgical treatment.

Conflicts of interest

The authors have no conflicts of interest to declare.

Appendix A. Supplementary data

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.repc.2021.10.013.