Unusual Cause of Cardiac Compression in a Trauma Patient: Cystic Thymoma

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A 29-year-old man with sudden onset of dyspnea and chest pain with impairment of the general status after falling down from five meters was transferred to our emergency department. He was completely asymptomatic before the injury, but hypotensive (80/50 mmHg) and tachycardic (112 beats/minute) after the injury. Chest radiograph revealed a bulging cardiac silhouette on the right paracardiac region with an increased cardiothoracic ratio of 70% (Figure 1a). Computed tomography revealed a giant cystic mass with a diameter of 10 cm making cardiac compression (Figure 1b). On transthoracic echocardiography, a huge mass neighboring the right atrium with 15x10 cm dimensions was seen. The mass was outside of the pericardial cavity. The left ventricular ejection fraction (LVEF) was 40%. The patient was taken to urgent operation. A huge unruptured cystic mass, which had no connection with the pericardium, was easily resected. Histopathologically, it was reported as a cystic thymoma. On the third postoperative day, echocardiography showed normal cardiac functions with a LVEF of 60%. The patient was discharged without any complications and asymptomatic after three months following surgery.

Thymomas are the most common anterior mediastinal masses in adults, accounting for 15% all mediastinal tumors and 30 to 50% of them are asymptomatic.1,2 It is reported that 40% of thymomas are characterized by cystic degeneration.3

In the present case, the huge cystic thymoma was present in the anterior mediastinum for many years without any symptoms. It was firstly misdiagnosed as pericardial

Figure 1a. Posteroanterior chest radiogram showing increased cardiothoracic ratio (brackets). The cardiac diameter (a) is 70% of the transthoracic diameter (b).

Figure 1b. Contrast-enhanced computed tomography showing a large cystic mass (arrowheads) causing cardiac compression (arrows).
tamponade because of a history of injury. A giant cyst formation compressing the heart became obvious after imaging. Although a definitive diagnosis can be obtained by the histopathological examination of the operative material, cystic thymoma should be considered in patients with anterior mediastinal cystic masses.

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