Mediastinal hematoma causing compression of the right ventricular outflow tract – the role of transthoracic echocardiography in diagnosis

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A 57-year-old man presented with acute coronary syndrome for which he was initially treated medically with a regimen that included acetylsalicylic acid, clopidogrel and heparin. Later, he was found to have two-vessel coronary artery disease requiring coronary artery bypass grafting. His postoperative period was complicated by hypotension and excessive bleeding, requiring multiple transfusions of blood products. His continued hemodynamic instability led to the suspicion of a mechanical complication. A transthoracic left parasternal short-axis view at the mitral valve level showed an anterior mediastinal hematoma compressing the right ventricular outflow tract (Figure 1).

Figure 1) Transthoracic left parasternal short-axis view showing an anterior mediastinal hematoma (MH) compressing the right ventricular outflow tract. LV Left ventricle; RV Right ventricle

The hematoma was also compressing the main pulmonary artery with its bifurcation, as well as the aorta, as shown by the transthoracic high right parasternal short-axis view (Figure 2).

The patient was taken back to the operating room, where the hematoma was evacuated. He did very well after that and left the hospital five days later (1).

REFERENCE

1. Irgau I, Fulda GJ, Hailstone D, Tinkoff GH. Internal mammary artery injury, anterior mediastinal hematoma, and cardiac compromise after blunt chest trauma. *J Trauma* 1995;39:1018-21.

Figure 2) Transthoracic high right parasternal short-axis view showing the mediastinal hematoma (MH) compressing the aorta (Ao), as well as the main pulmonary artery with its bifurcation. LMPA Left main pulmonary artery

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