

Cardiac arrest following cardiac tamponade caused by mycosis fungoides malignant pericarditis

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Abstract

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Title

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Abstract

MF is a low-grade lymphoma, but on reaching the tumor stage, it can cause cardiac tamponade owing to epicardial infiltration. Myocardial infiltration, even in the absence of abnormal imaging findings, requires attention because it can lead to arrhythmia and cardiac arrest.

Key clinical Message

MF is an indolent lymphoma, but when it reaches the tumor stage, it can cause cardiac tamponade due to extracardiac invasion, which may lead to arrhythmia and sudden death due to myocardial invasion.

Keywords : Mycosis fungoides, cardiac tamponade

A 48-year-old man diagnosed with mycosis fungoides (MF), advanced to the tumor stage (Fig.1a), presented with dyspnea. He was receiving gemcitabine at 1.2 g/m² once-weekly for eight weeks. Echocardiography revealed cardiac tamponade caused by malignant pericarditis (Fig.1b,c). However, echocardiography, computed tomography, and magnetic resonance imaging showed no evidence of wall thickening or intramyocardial masses suggesting myocardial infiltration. We drained 2 L pericardial fluid, which showed T cell clonality by Southern blot analysis, while starting radiation therapy to the pericardium. Thereafter, he developed a complete atrioventricular block, followed by cardiac arrest. In this case, MF might have invaded the myocardium and disordered the impulse conduction system. Malignant lymphoma (ML) occasionally presents with cardiac involvement, but most patients have no suggestive symptoms, and diagnosis while alive is difficult¹. William et al. reported that out of 48 autopsies of ML cases with cardiac involvement, only 37% involved the epicardium only, while the rest involved the ventricular wall and epicardium². MF is a low-grade lymphoma, but on reaching the tumor stage, it can cause cardiac tamponade owing to epicardial infiltration. Myocardial infiltration, even in the absence of abnormal imaging findings, requires attention because it can lead to arrhythmia and cardiac arrest.

Conflict of interest

All authors declare no conflicts of interest.

Informed consent

Written informed consent was obtained from the patient.

Author contributions

SS and ET: participated in the management of this patient. SS: prepared and edition of this manuscript.

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- 2) Roberts WC, Glancy DL, DeVita Jr VT. Heart in malignant lymphoma (Hodgkin's disease, lymphosarcoma, reticulum cell sarcoma and mycosis fungoides). A study of 196 autopsy cases. *Am J Cardiol*. 1968;22:85-107.

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