J Cardiovasc Imaging. 2022 Apr;30(2):151-152
https://doi.org/10.4250/jcvi.2021.0154
pISSN 2586-7210·eISSN 2586-7296

Journal of Cardiovascular Imaging JCVI

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A Rare Pericardial Milky Tamponade in the ER: When Images Speak Louder Than Words

Catarina Amaral Marques, MD[1,2], Carlos Xavier Resende, MD[1], Paulo Maia Araújo, MD[1], Rui J. Cerqueira, MD[3], and Cristina Cruz, MD, PhD[1]

[1]Department of Cardiology, São João Hospital Centre, Porto, Portugal
[2]Department of Biomedicine - Unit of Pharmacology and Therapeutics, Faculty of Medicine of the University of Porto, Porto, Portugal
[3]Department of Cardiothoracic Surgery, São João Hospital Centre, Porto, Portugal

OPEN ACCESS

Received: Sep 17, 2021
Revised: Oct 21, 2021
Accepted: Dec 2, 2021
Published online: Dec 30, 2021

Address for Correspondence:
Catarina Isabel Amaral Marques, MD
Department of Cardiology, São João Hospital Centre, Centro Hospitalar Universitário São João, Alameda Prof. Hernâni Monteiro, Porto 4200-319, Portugal.
Email: catarinamarques5@hotmail.com
catmarques@med.up.pt

ORCID iDs
Catarina Amaral Marques
https://orcid.org/0000-0003-0910-8555
Carlos Xavier Resende
https://orcid.org/0000-0001-6069-6976
Paulo Maia Araújo
https://orcid.org/0000-0002-8443-6471
Rui J. Cerqueira
https://orcid.org/0000-0002-4471-4019
Cristina Cruz
https://orcid.org/0000-0001-7037-7557

Conflict of Interest
The authors have no financial conflicts of interest.

We present a rare case in modern medical history, and only the fourth example,[1-3] of *Streptococcus Constellatus* purulent pericardial tamponade.

A 73-year-old immunocompetent man whose informed consent was obtained presented to our center with cardiac tamponade after being admitted for cervical laminectomy in the context of acute exacerbation of known cervical spondylotic myelopathy.

A transthoracic echocardiogram (**Figure 1**) showed clear signs of pericardial tamponade.

Figure 1 demonstrates the purulent pericardial fluid drained through a subxiphoid pericardiocentesis, a challenging procedure made possible via injection of heparinized saline solution into the pericardial space to dilute the purulent content. A total of 750 mL of fluid was drained. A pericardial drain was left in place, and intermittent drainage combined with antibiotic therapy was performed until the effusion has resolved, avoiding the need for surgical intervention.

Afterward, etiologic evaluation of the primary source of this *Streptococcus Constellatus* pericarditis infection was performed. A plausible explanation points to post-operative cervical collection, documented in magnetic resonance images, as the initial infection site and that contiguously spread to the heart.

The *Streptococcus anginosus* group (SAG) includes three commensal species of the respiratory, digestive, and reproductive tracts that have been linked to pyogenic infections.[1-4] The majority of reported SAG pericarditis cases occurs in immunocompromised people,[1] although this was not true for the presented patient.

This remarkable case reinforces the importance of considering opportunistic infectious etiology of cardiac tamponade in a world of increasingly immunocompromised patients.

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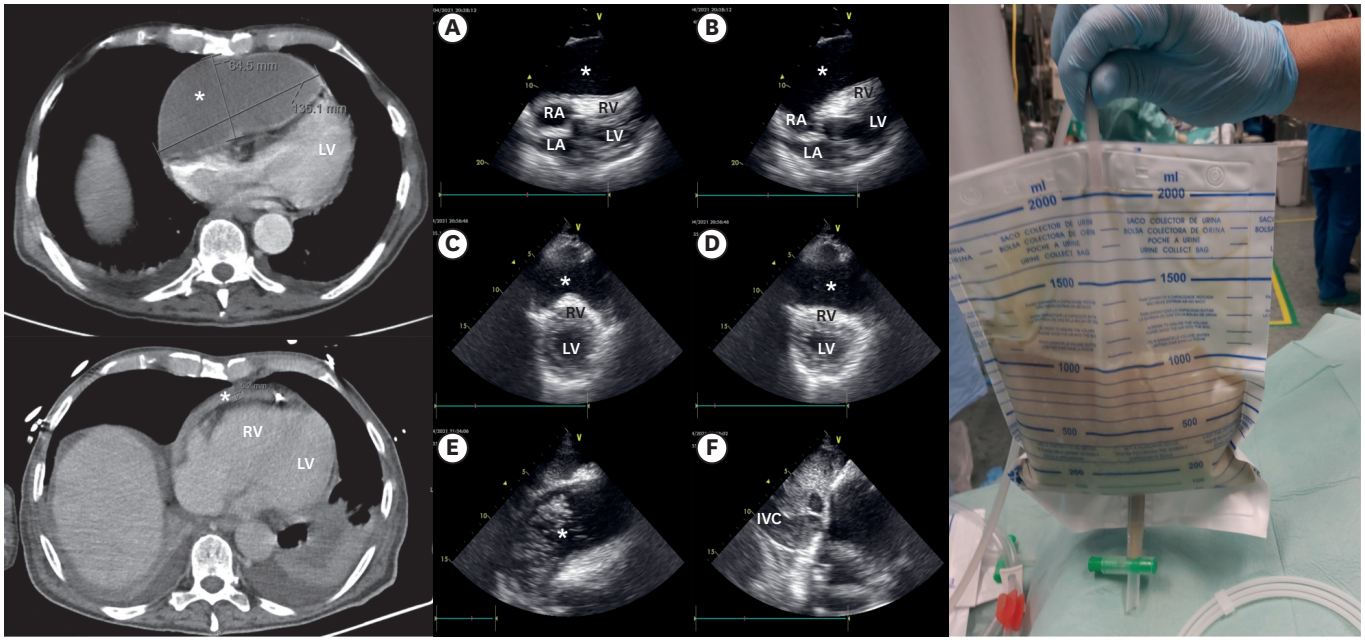

Figure 1. Imagiological characterization of the pericardial effusion and drained fluid having a milky appearence.
On the left side are chest CT images of the patient. In the upper panel, an enormous loculated PE is shown with dimensions of approximately 13 × 7 cm. In the lower left panel is the post-pericardiocentesis CT image showing resolution of the PE and a clear view of the RV. (A-F) Images present echocardiographic images of the patient's large PE, showing echocardiographic signs suggestive of cardiac tamponade: a complete collapse of right heart chambers and IVC plethora (F). (E) The apparency of the effusion is illustrated as a large heterogeneous and loculated effusion with unusual appearance without evidence of fibrin material. In the right image is the milky appearance of nearly one liter of drained effusion.
CT: computed tomography, IVC: inferior vena cava, LA: left atrium, LV: left ventricle, PE: pericardial effusion, RA: right atrium, RV: right ventricle.
*Pericardial effusion.

Author Contributions

Conceptualization: Marques CA, Resende CX, Araújo PM; Supervision: Marques CA, Resende CX, Araújo PM, Cerqueira RJ, Cruz C; Validation: Marques CA, Resende CX, Araújo PM, Cerqueira RJ, Cruz C; Visualization: Marques CA, Resende CX, Araújo PM, Cerqueira RJ, Cruz C; Writing - original draft: Marques CA; Writing - review & editing: Marques CA, Resende CX, Araújo PM, Cerqueira RJ, Cruz C.

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