



IMAGES IN INTENSIVE MEDICINE

Use of echo-contrast in the diagnosis of coronary fistula rupture[☆]



Uso de ecocontraste en el diagnóstico de rotura de una fístula coronaria

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Seventy-six-year-old male with a prior history of chronic ischemic cardiomyopathy (percutaneous revascularization of left and right anterior descending arteries) and coronary fistula from common trunk to known right atrium who presents to the ER complaining of chest pain and posterior asthenia and progressive dyspnea of one-week duration. During his stay at the ER, the patient develops hypotension and severe desaturation, which is why he is admitted to the ICU where one transthoracic echocardiogram (TTE) procedure is conducted that confirms the presence of massive pericardial effusion of up to 4.3 cm ([video 1](#)). A pericardial drainage procedure is conducted and the TTE with systemic injection of 3 ml of sulfur hexafluoride (Sonovue[®]) confirms the presence of bubbles from this solution in the pericardium ([Fig. 1](#) and [video 2](#)). After stabilizing the patient and on suspicion of coronary fistula rupture, one coronary angiography is conducted that confirms the presence of pseudoaneurysm of the fistula ([Fig. 2](#) and [video 3](#)) as the possible cause for the bleeding that is later sealed. The patient was discharged from the hospital after six (6) days.

This case summarizes the utility of echocardiograms in the ICU setting, as well as that of echo-contrast that is also useful in multiple clinical situations.

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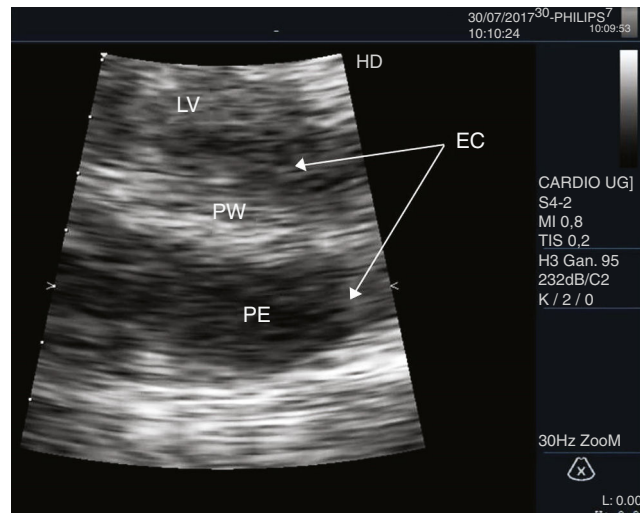


Figure 1 Transverse parasternal plane with zoom at posterior wall level.
PE: pericardial effusion; EC: echo-contrast; PW: posterior wall; LV: left ventricle.

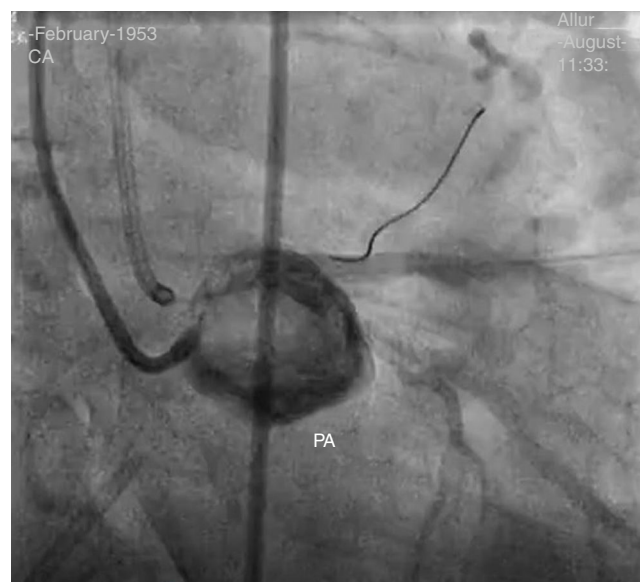


Figure 2 The coronary angiography confirms the presence of pseudoaneurysm (PA) of the coronary fistula.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at [doi:10.1016/j.medine.2018.09.001](https://doi.org/10.1016/j.medine.2018.09.001)