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## Case Report

# *Chronic Pericardial Hematoma With A Cystic-Like Appearance*

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## ABSTRACT

Intrapericardial hematomas are mostly found in association with traumas, cardiac surgical operations, and coronary interventions. In the case of open-heart surgeries, intrapericardial hematomas usually resolve without complications. However, in rare cases, they could be chronic or mimic the features of other lesions. We herein introduce a case of pericardial hematoma late after coronary artery bypass surgery with a cystic-like appearance. ***(Iranian Heart Journal 2022; 23(1): 237-239)***

**KEYWORDS:** Pericardial cyst, Hematoma, Coronary artery bypass surgery

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Intrapericardial hematomas after open-heart surgery usually resolve without complications. Still, in some cases, they could be chronic; and in rare cases, they could expand and compress the cardiac chambers. [1-3] We herein introduce an interesting case of pericardial hematoma late after coronary artery bypass graft surgery (CABG) with a cystic-like appearance in echocardiography that was confirmed by computed tomography.

### Case Report

A 57-year-old man with a history of CABG 20 years earlier and intracardiac cardioverter-defibrillator implantation 7 years earlier came to the outpatient echocardiography clinic for follow-up. The patient was asymptomatic and was on medical treatment with carvedilol, aspirin, atorvastatin, and captopril. In transthoracic echocardiography, a cystic-like lesion was observed lateral and inferior to the right atrium (Video 1). No flow Doppler signal was detected inside the mass (Fig. 1 & Video 2). For further evaluation, computed tomography was requested. A 64-slice computed tomography examination revealed a 54×26 mm cystic lesion adjacent to the right atrium and a mild impression on the right atrium, splaying the pericardium. The density of the lesion was about 25 HU. These findings were suggestive of an old hematoma due to a previous CABG at the site of the saphenous vein graft on the distal right coronary artery (Fig. 2). Considering that the patient was asymptomatic, and there was no significant compression effect on the cardiac structures, he was not scheduled for any interventional procedure. He remained asymptomatic during his follow-up.

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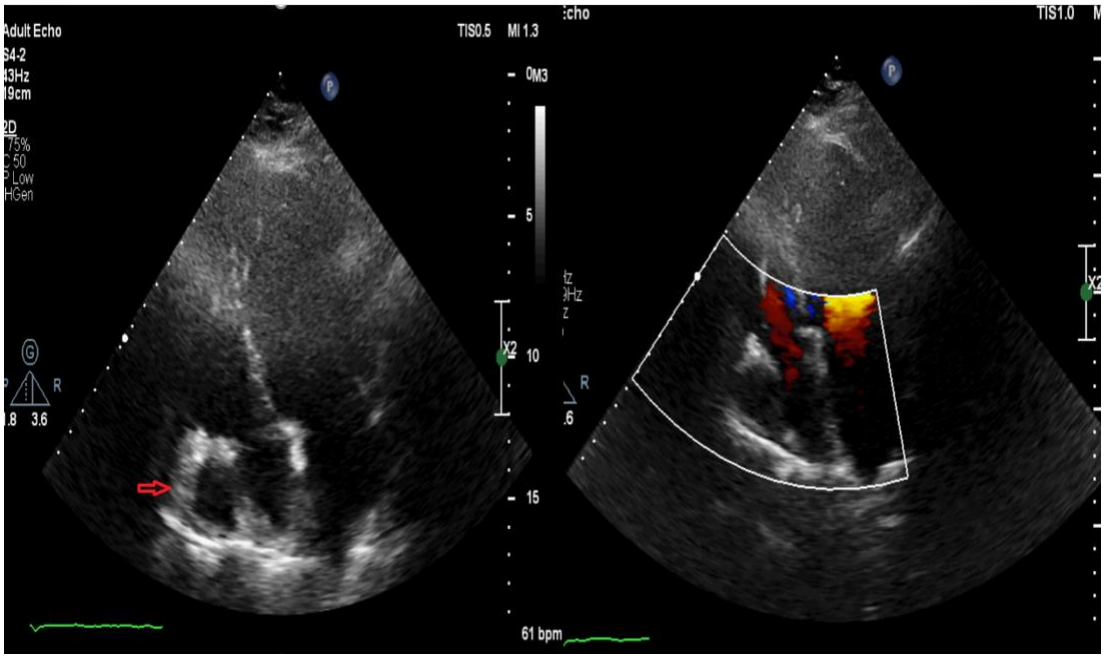


**Figure 1.** Transthoracic echocardiography (the 4-chamber view) reveals a cystic lesion lateral and inferior to the right atrium (the left image; the red arrow) with no color (the right image).

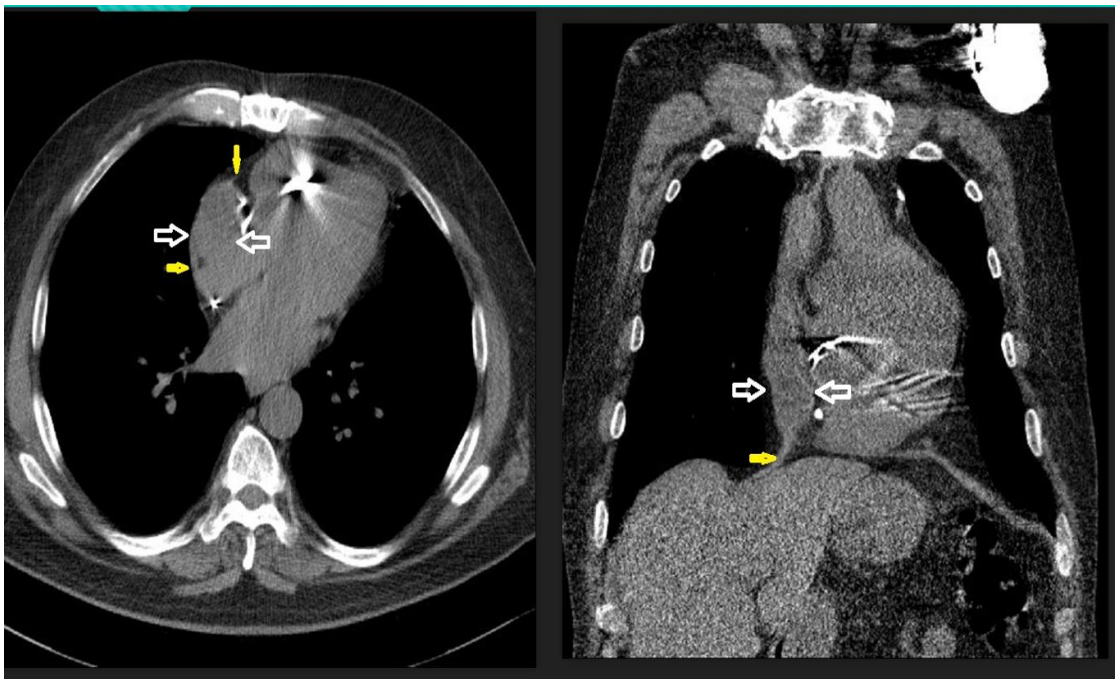

**Figure 2.** Left: The axial non-contrast thorax computed tomography shows a cystic lesion (the white arrow) at the right lateral aspect of the right atrium and adjacent to the pericardium (the yellow arrow).

**Figure 2.** Right: The coronal reconstruction shows a cystic lesion (the white arrow) and the pericardium (the yellow arrow).

## DISCUSSION

Intrapericardial hematomas are mostly found in association with traumas, cardiac surgeries, and coronary interventions. [4] An echocardiographic examination is a valuable tool for the assessment of postoperative pericardial effusions or hematomas. Nevertheless, in localized pericardial hematomas, echocardiography has some limitations, and sometimes differentiation with other masses is difficult. [5] Herein, we introduced a case of a chronic pericardial hematoma that mimicked the features of a pericardial cyst.

Pericardial cysts are rare mediastinal abnormalities that are usually congenital but may also be acquired after cardiothoracic surgery. [6] About 70% of pericardial cysts are located in the right cardiophrenic angle and rarely cause symptoms. [7] The diagnosis of pericardial cysts can be made by computed tomography and echocardiography. While most pericardial cysts are due to developmental abnormalities, some other pathologies can mimic the cystic appearance, including pericardial echinococcosis, benign teratomas, cavernous hemangiomas, and traumas [7] as was the case in our patient with a pericardial hematoma.

## CONCLUSIONS

We herein presented an interesting case of a pericardial hematoma given its post-CABG endurance and unusual features of a cystic appearance.

**Competing Interest:** None declared

**Ethical Approval:** Informed consent was obtained from the patient for the publication of the case.

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