

CLINICAL VIDEO

Emphysematous myocardial abscess without infective endocarditis

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Abstract

Diagnosis of myocardial abscess without endocarditis is challenging, and a high index of clinical suspicion is fundamental for diagnosis. It should never be ruled out before TEE. And CT could be a helpful modality in case of emphysematous morphology.

KEY WORDS

emphysematous, *Escherichia coli*, myocardial abscess

1 | CASE PRESENTATION

A myocardial abscess is a rare and fatal disease, which is known to be challenging to diagnose, especially in case of isolated one without endocarditis. We present a case of emphysematous myocardial abscess detected by computed tomography, and echocardiography, and confirmed by surgery.

An 81-year-old woman presented with shortness of breath and fever. Her blood pressure and heart rate were normal; however, she had elevated body temperature (38.9°C). Physical examination, laboratory study, and chest x-ray indicated sepsis and heart failure. Transthoracic echocardiography showed no abnormality, but computed tomography (CT) demonstrated abnormal air bubbles with low attenuated lesions surrounding the mitral annulus (Figure 1). Transesophageal echocardiography (TEE) revealed a round,

echo-free lesion in the lateral myocardial wall, and a moderate amount of pericardial effusion (Video S1, S2). During the surgery, an abscess pocket was exposed on the posterolateral wall of the left ventricle (Video S3). There was no evidence of endocarditis. The abscess was incised and drained. *Escherichia coli* was isolated from the tissues and pus of the abscess, and it was the same pathogen isolated from blood culture samples.

A myocardial abscess has been generally diagnosed during autopsies or surgeries due to diagnostic difficulty and clinical lethality.¹ Prompt diagnosis facilitates timely surgical intervention, and it is crucial for prognosis.² If myocardial abscess exhibits emphysematous morphology, CT may play an important role in diagnosis, and if there is any possibility of myocardial abscess, it should never be ruled out before TEE.

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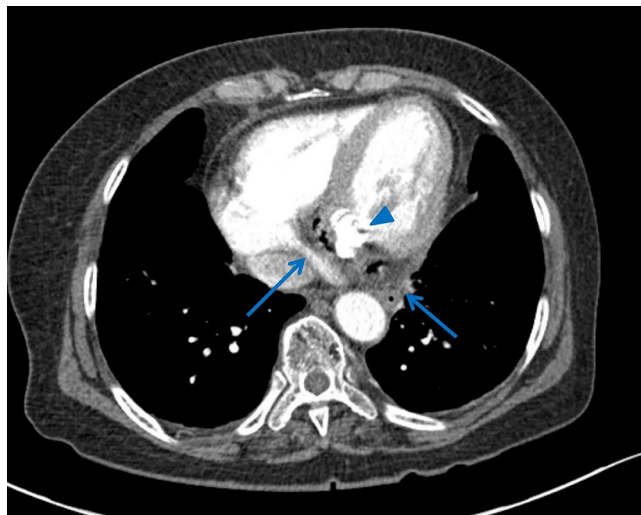


FIGURE 1 Contrast-enhanced chest computed tomography image revealing abnormal air bubbles with low attenuated lesion (arrows) surrounding the calcified mitral valve annulus (arrowhead)

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DISCLOSURES

None.

CONFLICTS OF INTEREST

None declared.

AUTHOR CONTRIBUTIONS

JP: collected the information, edited figure and videos, and drafted the manuscript, SHS: designed the project and supervised the writing the manuscript, YJS: performed transesophageal echocardiography and described findings, SK, DKK,

KHK, and DIK: discussed the results and advised about the case, BSP: offered patient's clinical information. All authors read and approved the final manuscript.

ETHICAL APPROVAL

Not required.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analyzed during the current study.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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