

## Editöre Mektup

### A case of a free-floating ball thrombus in the left atrium after administration of streptokinase in a patient with early mitral valve replacement

*Erken mitral kapak replasmanlı hastada streptokinaz uygulaması sonrası sol atriyumda top şeklinde serbest yüzen trombüs olgusu*

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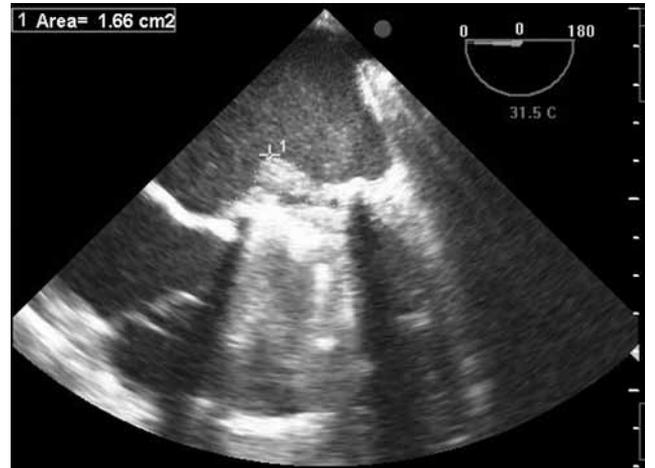
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This article presented a case of a free-floating ball thrombus in the left atrium after administration of streptokinase in a patient with early mitral valve replacement.

#### CASE REPORT

A 38-year-old female was admitted to our hospital with complaints of progressive dyspnea, orthopnea, and palpitations in the previous month (New York Heart Association Class IV). Four months previously she had undergone mitral valve replacement (MVR) with a St. Jude prosthesis (St. Jude Medical, Inc., St. Paul, MN, U.S.A.) for rheumatic mitral stenosis at another institution, but she was not taking warfarin when admitted to our facility. Her arterial blood pressure was 102/80 mmHg, and her pulse rate was 125 beats/minute with regular rhythm, but it could not be detected over the mitral valve area. Her whole blood count revealed leukocyte 12500 mm<sup>3</sup>, hemoglobin 13 g/dl, hematocrit 41%, international normalized ratio (INR) 1.2, urea 32 mg/dl, and creatinine 1.3 mg/dl. Electrocardiography showed sinus rhythm with a heart rate of 125 beats/minute. On transthoracic echocardiography, a thrombus was observed over the mitral valve (Figure 1). Color

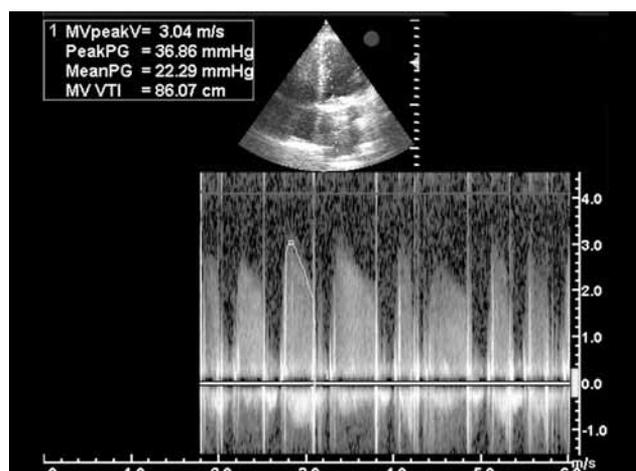
Doppler examinations demonstrated severe mitral stenosis (peak/mean gradient=36/22 mmHg and mitral valve area=0.8 cm<sup>2</sup> calculated by the pressure half-time method), (Figure 2) normal left ventricular dimensions, and systolic functions. We advised re-MVR and the removal of the thrombus, but she refused. Thus, we started streptokinase 250.000 intravenous



**Figure 1.** Transesophageal echocardiography showing thrombus over mitral valve.

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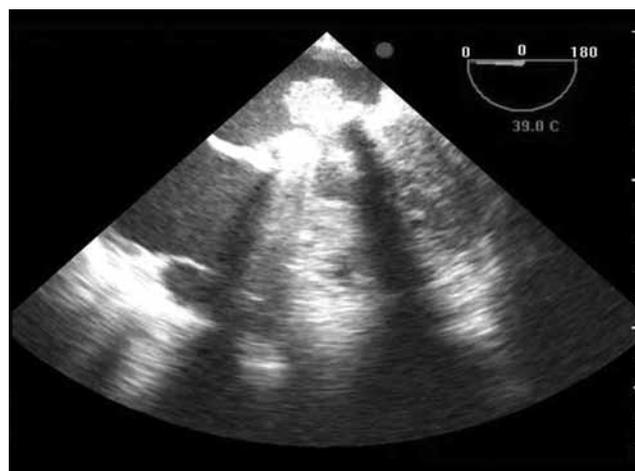
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**Figure 2.** Doppler examination showing severe mitral stenosis.

bolus followed by 100.000 units/hour for 24 hours. The patient's general condition worsened, and she developed a peripheral thromboembolism in the right leg. Recurrent transthoracic and transesophageal echocardiography studies revealed a free-floating ball thrombus in the left atrium (LA) (Figure 3). The thrombus caused intermittent complete occlusion of the stenotic mitral valve. The patient underwent re-MVR surgery for emergency removal of the free-floating thrombus from the LA, and a histological examination proved that this diagnosis was correct.

A free-floating ball thrombus in the LA after MVR is a very rare<sup>[1]</sup> and dramatic finding seen on echocardiography in patients with mitral valve disease.<sup>[2]</sup> When a ball thrombus is suspected on clinical grounds, transthoracic echocardiography should be performed without any delay.<sup>[3]</sup> The presented case is about MVR with a free-floating ball thrombus in the left atrium after the administration of streptokinase in a young patient.



**Figure 3.** Control echocardiographic examination showing free-floating ball thrombus in the left atrium.

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