


Clinical vignette
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Gigantic left atrial thrombus

Andrzej Gackowski*, Wieslawa Piwowarska, Roman Pfitzner, Jadwiga Nessler, and Ewa Konduracka

Department of Coronary Disease and Department of Cardiovascular Surgery, Institute of Cardiology, Jagiellonian University, John Paul II Hospital, Cracow 31 202, Poland

* Corresponding author. Tel: +48602255122; fax: +48126336744. E-mail address: gacek@szpitaljp2.krakow.pl

A 63-year-old woman underwent surgical mitral valvuloplasty due to rheumatic stenosis 36 years ago. Twelve years later, atrial fibrillation and recurrence of mitral stenosis were diagnosed. Mitral valve replacement was proposed but the patient refused. She had exertional dyspnea but due to her sedentary lifestyle it did not significantly limit her regular physical activity. Six years ago, a left atrial thrombus was diagnosed. She persistently refused surgery. Six months ago, she was urgently hospitalized due to pulmonary edema, loss of consciousness, and transient left-sided hemiparesis. An X-ray showed pulmonary edema with complete shadowing of the lower right lung field. An echocardiogram revealed mitral stenosis (0.8 cm²), a small left ventricle (LV) and a gigantic left atrium (LA) (13×15×12 cm) filled with an extremely big mass (11×8×8 cm) (Panels A and B). Superficial soft mobile thrombus was identified (Panel C). RVSP was 70 mmHg. After initial clinical improvement, an MRI scan was performed to exclude neoplastic origin of the mass (Panel D).

The patient agreed to be operated on. The surgeon removed 550 g of organized, partly calcified thrombus (Panel E) with a fresh and mobile outer layer (Panel F). A mechanical mitral prosthesis was implanted and the LA wall was plicated. Sinus rhythm was restored but 5 days later atrial fibrillation reoccurred. Six months later, she was in NYHA II class, without neurological deficit. Her LA was much smaller (5×6×6 cm).

Panel A. Echocardiographic parasternal long-axis view. Gigantic LA with thrombus (thromb), stenotic mitral valve, and relatively small ventricles (LV, RV).

Panel B. Parasternal short-axis view. Thrombosed LA.

Panel C. Tissue Doppler imaging showing highly mobile superficial layer (not seen in 2D imaging due to low echogenicity).

Panel D. Chest MRI scan confirming the previous findings. Pleural effusion (PE).

Panel E. The thrombus seen by the cardiosurgeon.

Panel F. Fresh part of the thrombus, previously visualized non-invasively.

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