

Real-time three-dimensional transoesophageal echocardiographic imaging of an aorto-left atrial fistula

Trójwymiarowe obrazowanie w czasie rzeczywistym metodą przezprzełykową przetoki między aortą a lewym przedsionkiem

Ahmet Çağrı Aykan¹, Mehmet Özkan², Mustafa O. Gürsoy²

¹Department of Cardiology, Ahi Evren Chest and Cardiovascular Surgery Education and Research Hospital, Trabzon, Turkey

²Department of Cardiology, Kartal Kosuyolu Heart Training and Research Hospital, Istanbul, Turkey

A 21-year-old man with Marfan syndrome with aortic and mitral mechanical prosthetic valve presented with a type-3 aortic dissection. A successful endovascular aortic repair with graft stent was performed. On the fifth day of admission, he was uneventfully discharged. But ten days later, he represented with dyspnoea, high fever (39.2°C) and chills. He had a 4/6 diastolic murmur at aortic point in physical examination. He had leukocytosis ($27,000 \times 10^9/L$) and increased C-reactive protein (75 mg/L) levels on laboratory analysis. Transthoracic echocardiography was performed due to the suspicion of infective endocarditis which demonstrated a paraaortic abscess. Two- and real-time three-dimensional transoesophageal echocardiography (3D TEE) confirmed the presence of an abscess and showed a paravalvular leak through an aorto-left atrial fistula (Fig. 1). Furthermore, real-time 3D TEE clearly depicted that there were two openings into the left atrium (Fig. 2). Antibiotherapy was administered to the patient and he underwent a successful operation after the infection was controlled.

This case highlights that real-time 3D TEE may be superior to conventional transoesophageal echocardiography in evaluating complications of aortic prosthesis.

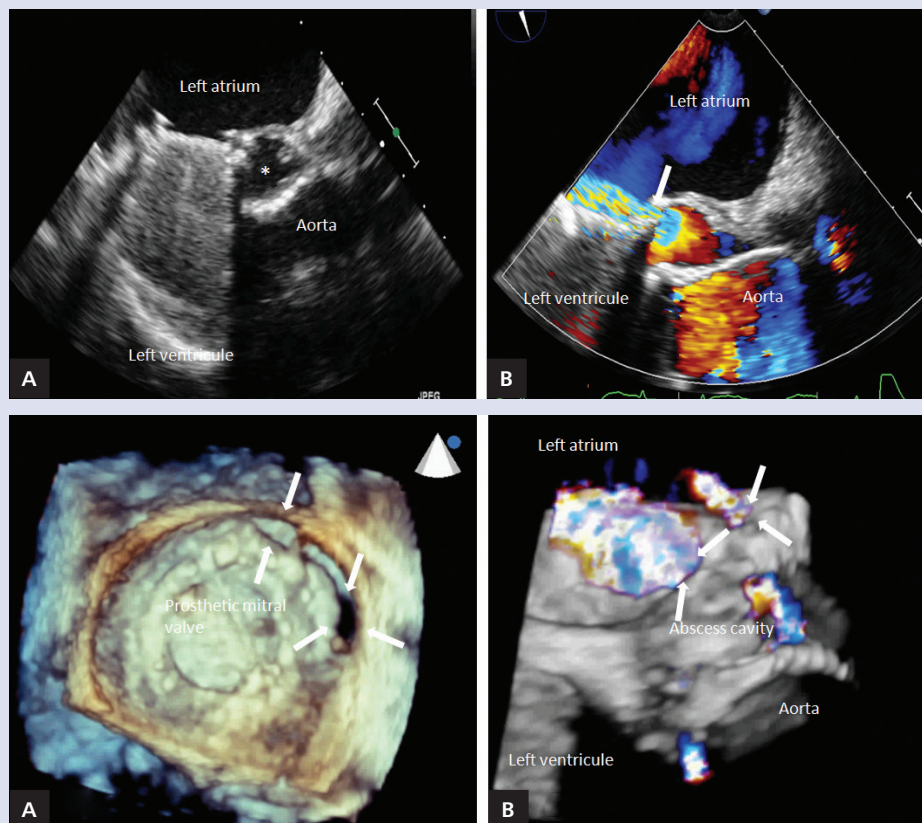


Figure 1. A. Asterisk indicates an aortic paravalvular abscess located between the native aortic wall and prosthetic aorta; B. Severe mitral paravalvular regurgitation through this abscess cavity was demonstrated by TEE

Figure 2. A. Arrows show the openings of aorto-left atrial fistulas into the left atrium; B. Arrows indicate colour full volume 3D TEE imaging of the two aorto-left atrial fistulas and localisation and extension of abscess cavity

Address for correspondence:

Dr. Ahmet Çağrı Aykan, Department of Cardiology, Ahi Evren Chest and Cardiovascular Surgery Education and Research Hospital, Soğuksu Mah., Çamlık Cad., 61040 Trabzon, Turkey, tel: 90 505 868 9461, fax: 90 462 231 0483, e-mail: ahmetaykan@yahoo.com

Conflict of interest: none declared