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

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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 × 10⁹/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.

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