

Ruptured aneurysm of the sinus of Valsalva manifesting as acute heart failure

Pęknięcie tętniaka zatoki Valsalwy przejawiające się jako ostra niewydolność serca

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A 62-year-old woman was admitted to our hospital because of increasing dyspnoea, limited exercise tolerance and a dry hacking cough. She denied upper respiratory tract infection. The patient had been regularly treated for severe hypertension for the previous 20 years. The patient was admitted in an unstable condition. Her physical examination revealed aortic murmur and tachycardia, and blood pressure was increased. Transthoracic echocardiography revealed communication between ruptured aneurysm of the noncoronary sinus of Valsalva and the right atrium. The diagnosis was confirmed in transoesophageal echocardiography (Fig. 1). The patient was operated upon with cardiopulmonary bypass, hypothermia (30°C) and cardioplegic arrest. Intraoperatively, we found ruptured aneurysm of the noncoronary sinus of Valsalva with fistulous tract between the noncoronary sinus and the right atrium (Fig. 2). Surgical findings also included atrial septal defect type secundum. The fistula was closed with plasty of the sinus of Valsalva (Dacron 3 × 2 cm) and the atrial septal defect was repaired (Fig. 3). The early postoperative period was uneventful. The patient was discharged from the hospital in good condition on the ninth day of treatment.

Aneurysm of the sinus of Valsalva is a rare cardiac anomaly. It is usually an asymptomatic disease, but when it ruptures, symptoms appear and the patient's condition deteriorates rapidly. This aneurysm ruptured in the right atrium, causing haemodynamic complications. The diagnosis was obtained by transthoracic and transoesophageal echocardiography. The prognosis of ruptured aneurysm of sinus of Valsalva is always serious and surgery is the treatment of choice. A left-to-right shunt to the right atrium may cause an increase of haemodynamic loading of the heart, and the patient will require urgent surgery. This was indeed the treatment used for our patient.

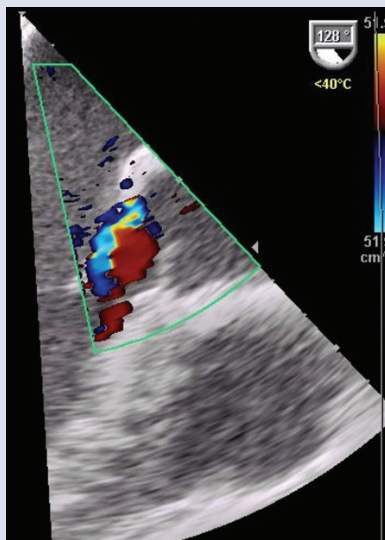


Figure 1. Transoesophageal echocardiography — screening modified. Colour-labelled study showing a leak between the ruptured aneurysm of the sinus of Valsalva and the right atrium

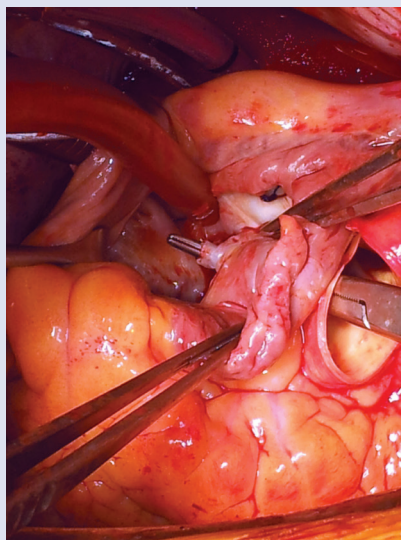


Figure 2. Intraoperative view. Dissecting forceps in the fistulous tract between the noncoronary sinus of Valsalva and the right atrium

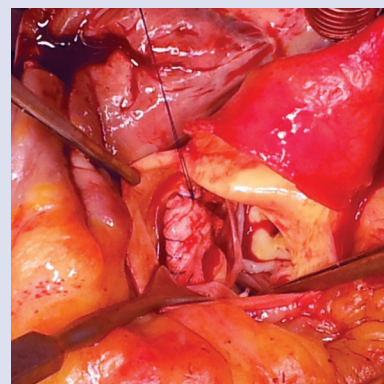


Figure 3. Intraoperative view. Plasty of the sinus of Valsalva with a Dacron patch 3 × 2 cm

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