An overlooked ostium secundum atrial septal defect in a patient presenting with atrial fibrillation and heart failure

Iva Zec*, **Tereza Knaflec**, **Nikolina Mijač Mikačić**, **Martina Roginić**, **Siniša Roginić**

Zabok General Hospital and Croatian Veterans Hospital, Zabok, Croatia

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***ADDRESS FOR CORRESPONDENCE**: Iva Zec, Opća bolnica Zabok i bolnica hrvatskih veterana, Bračak 8, HR-49210 Bračak, Croatia. / Phone: +385-98-9160-026 / E-mail: ivatokic2612@gmail.com

ORCID: Iva Zec, https://orcid.org/0000-0002-7947-3577 • Tereza Knaflec, https://orcid.org/0000-0002-4915-3935 Nikolina Mijač Mikačić, https://orcid.org/0000-0002-0933-6577 • Martina Roginić, https://orcid.org/0000-0001-5463-5392 Siniša Roginić, https://orcid.org/0000-0002-0384-8088

Introduction: Atrial septal defects (ASDs) represent the most common congenital heart defect diagnosed in adulthood. There are several types of ASD and the most common one is ostium secundum defect type (80%). The heterogeneity in anatomy and the progression of complications over time, including arrhythmias, thromboembolism, right heart failure, and pulmonary arterial hypertension, pose significant challenges to finding optimal diagnostic and treatment solutions.[1]

Case report: 70-year-old woman was hospitalized due to acute heart failure presumably precipitated with new-onset atrial fibrillation (AF). Transthoracic echocardiography found right ventricular volume overload (right ventricular dilatation resulting in tricuspid annular dilatation and moderate tricuspid regurgitation) with also dilatated both atrium (more right than left) and abnormal motion of the interventricular septum (towards the left atrium). There was also a high probability of pulmonary hypertension. All of these features initially raised suspicion of pulmonary embolism, later ruled out by CT angiography. Afterwards, transesophageal echocardiography (TEE) was performed to exclude left atrium thrombus. In the end, a successful cardioversion was performed and she was then discharged home with a prescription for optimal medical therapy. On hospital readmission in three months, control TTE was made, but now we detected an ASD (16-20mm) with L-D shunt (Qp/Qs 2,5:1) later confirmed with TEE. She was then scheduled to undergo coronarography and right heart catheterization.

Conclusion: This case illustrates the importance of a systematic protocol for transthoracic and transesophageal echocardiography rather than a targeted approach. Another important message is not to jump to conclusion that heart failure is caused by an obvious pathology (in this case atrial fibrillation), but to think about congenital heart defect, even in older patients.

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LITERATURE

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