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Original Image / Özgün Görüntü

# Congenital Common Atrium

## Konjenital Ortak Atrium

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A 39-year-old female, who was an immigrant, presented to her primary care physician with complaints of shortness of breath, palpitation and syncope. She had been diagnosed with an unspecified heart condition several years ago in her home country. Electrocardiography (Figure 1) revealed atrial fibrillation, right bundle branch block and a deep S wave in V6, suggesting right ventricular enlargement (as indicated by the arrow in Figure 1). Pre-operative echocardiography (Figure 2) revealed a large common atrium with moderate tricuspid and mitral regurgitation. Cardiac catheterisation revealed large left-to-right shunt and moderate pulmonary hypertension. The patient was scheduled for surgery and underwent repair of the septal defect in addition to the tricuspid mitral valvuloplasty.

Common atrium is a rare congenital condition manifested by the absence of atrial septal tissue. It is typically diagnosed in childhood and may occur on its own or as part of the autosomal recessive 'Ellis van Creveld Syndrome (EVC)'. Our patient did not show any physical characteristics consistent with EVC. However, the architecture of her heart differed from that of normal hearts, as evidenced by intraoperative transoesophageal echocardiography (TEE). 2-D TEE revealed a small left ventricle, dilated right ventricle, and common atrium (Figure 3). In addition, 3-D TEE revealed a mitral valve cleft (Arrow), a hypo plastic tricuspid septal leaflet, and a swan-like left ventricular outflow tract. The classic Carpentier classification for mitral valve leaflet anatomy may not be applied for these types of defects. In addition, Doppler examination revealed a tricuspid and mitral insufficiency. Post-operation, the patient was discharged after a short ICU stay.

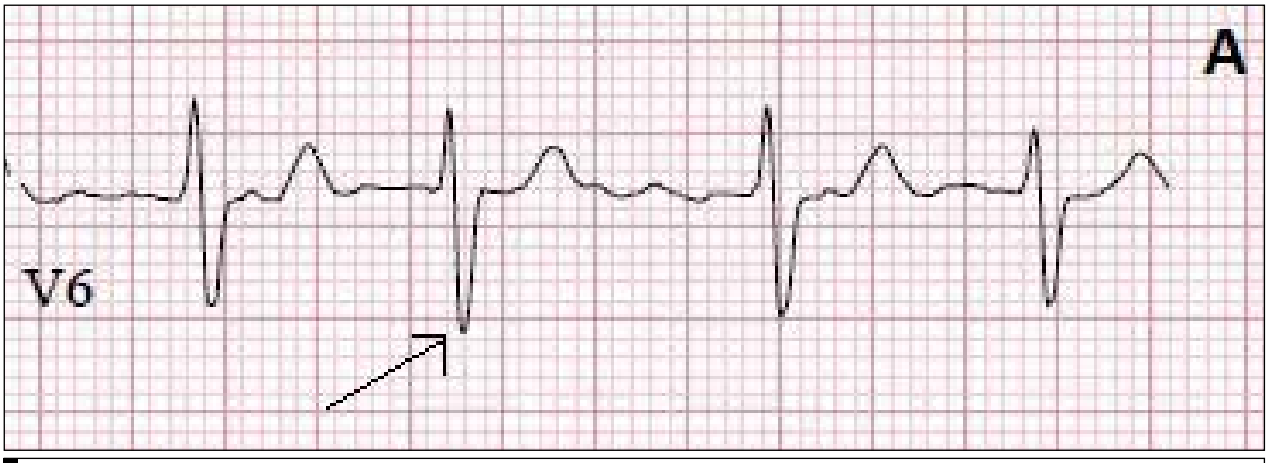


Figure 1. Electrocardiogram displaying deep S wave in Lead V6 suggests Right ventricular enlargement



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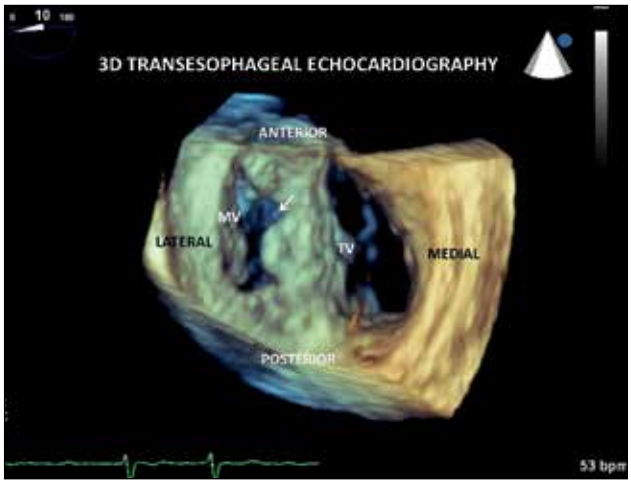


Figure 2. Three-Dimensional transesophageal echocardiographic image viewing from the atria into the ventricles: Displaying lack of interatrial septum, a mitral valve cleft and tricuspid valve


Figure 3. Two-Dimensional transesophageal echocardiography image displaying common atrium, small left ventricle and relatively larger right ventricle

**Informed Consent:** Written informed consent was obtained from the patient before surgery and discussed in detail about the images and de-identification.(patient) who participated in this study.

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