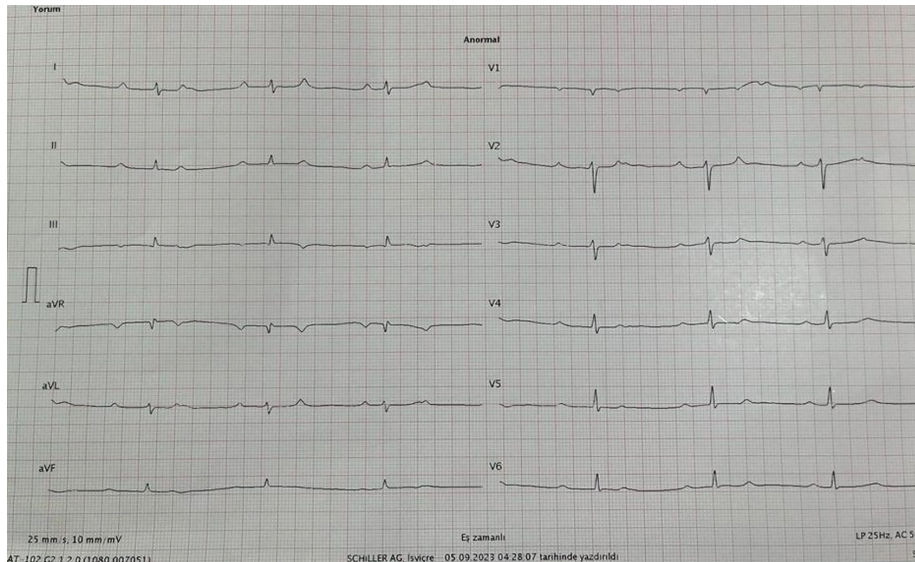







## Complete Atrioventricular Block Due to Atrioventricular Node Invasion in a Malignant Melanoma Patient

A 47-year-old female patient applied to the emergency department with complaints of facial numbness and fatigue. The patient's electrocardiogram was observed as complete atrioventricular (AV) block, and hemodynamics was stable (Figure 1). The patient was followed up with malignant melanoma in her medical history. The patient was followed up in the cardiology intensive care unit, and a transesophageal echo was performed due to a mass in the heart in the transthoracic echo. Transthoracic echo revealed that a multilobular mass of 71 × 34 mm was observed in the interatrial septum, originating from the mitral and tricuspid side (AV node localization). This mass contacts all parts of the interatrial septum except the aneurysm, prolapses into the right ventricle in diastole, and partially blocks the right ventricular flow. In addition, it was observed that the mass filled the area where the superior vena cava opened into the right atrium and affected the flow. There was a patent foramen ovale in the interatrial septum that created a wide right-left shunt similar to atrial septal defect. Positron emission tomography-computed tomography was performed in the patient considering malignant melanoma, and cardiac involvement was demonstrated (Figure 2). The patient with multiple body metastases was followed up for 16 days. No deterioration in hemodynamics was observed. The patient who did not describe any cardiac symptoms did not want pacemaker implantation. The patient was accepted as inoperative by the multidisciplinary team, and his close follow-up continues. The AV complete block rhythm continues in the patient, and there was no deterioration in hemodynamics.



**Figure 1. Electrocardiography shows complete atrioventricular block. Atrial rate 65 bpm, ventricular rate 42 bpm.**

### E-PAGE ORIGINAL IMAGE

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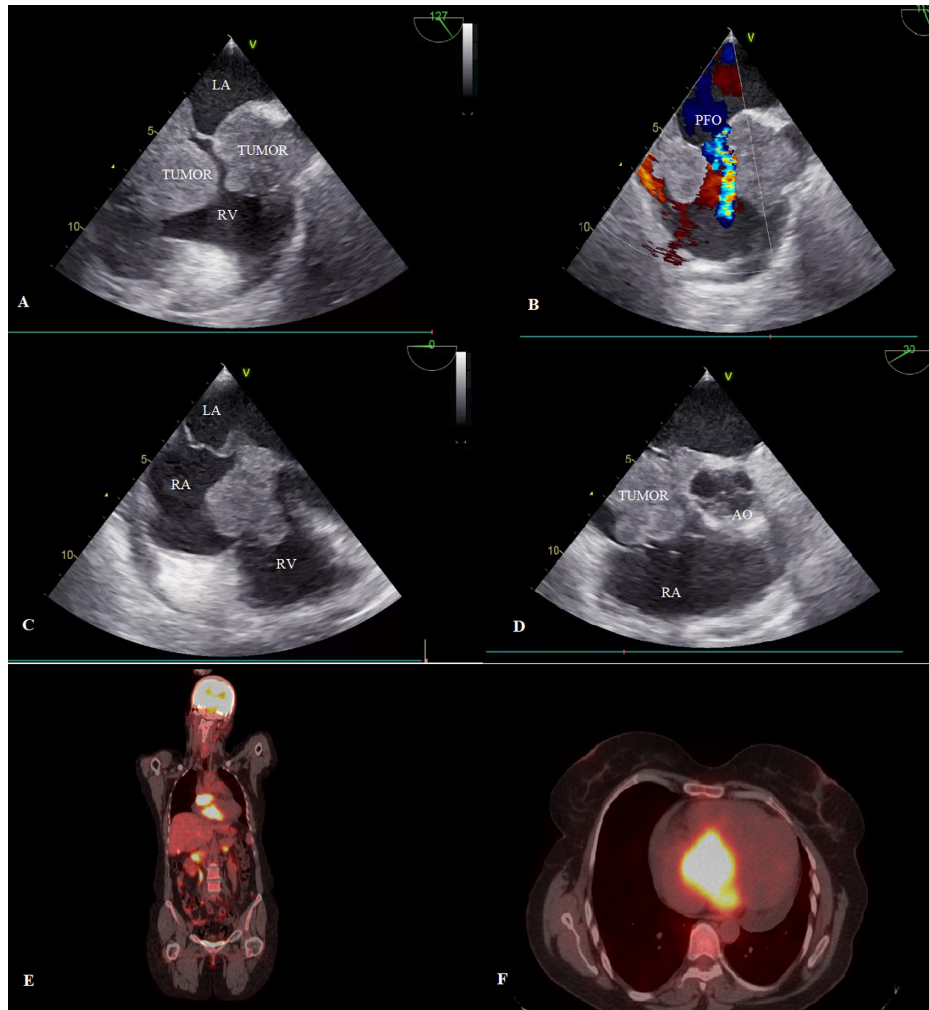
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**Figure 2.** A-D: Transthoracic echo revealed that a multilobular mass of  $71 \times 34$  mm was observed in the interatrial septum, originating from the mitral and tricuspid side (atrioventricular node localization). This mass contacts all parts of the interatrial septum except the aneurysm, prolapses into the right ventricle in diastole, and partially blocks the right ventricular flow. In addition, it was observed that the mass filled the area where the superior vena cava opened into the right atrium and affected the flow. There was a patent foramen ovale in the interatrial septum that created a wide right-left shunt similar to atrial septal defect. E, F: In a patient diagnosed with malignant melanoma, hypermetabolic metastatic lesions were observed in the heart, both kidneys, pancreas, left hemithorax pleura, diaphragmatic surfaces, intra-abdominal peritoneal surfaces, and anterior abdominal wall. Two hypermetabolic foci are observed, measuring  $29 \times 51$  in the right atrium localization and  $40 \times 31$  in the atrioventricular area. AO, aorta; LA, left atrium; PFO, patent foramen ovale; RA, right atrium; RV, right ventricle; ASD, atrial septal defect; PET CT, positron emission tomography-computed tomography; PFO, patent foramen ovale.

**Informed Consent:** The patient has given her consent for her images and other clinical information to be reported.

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