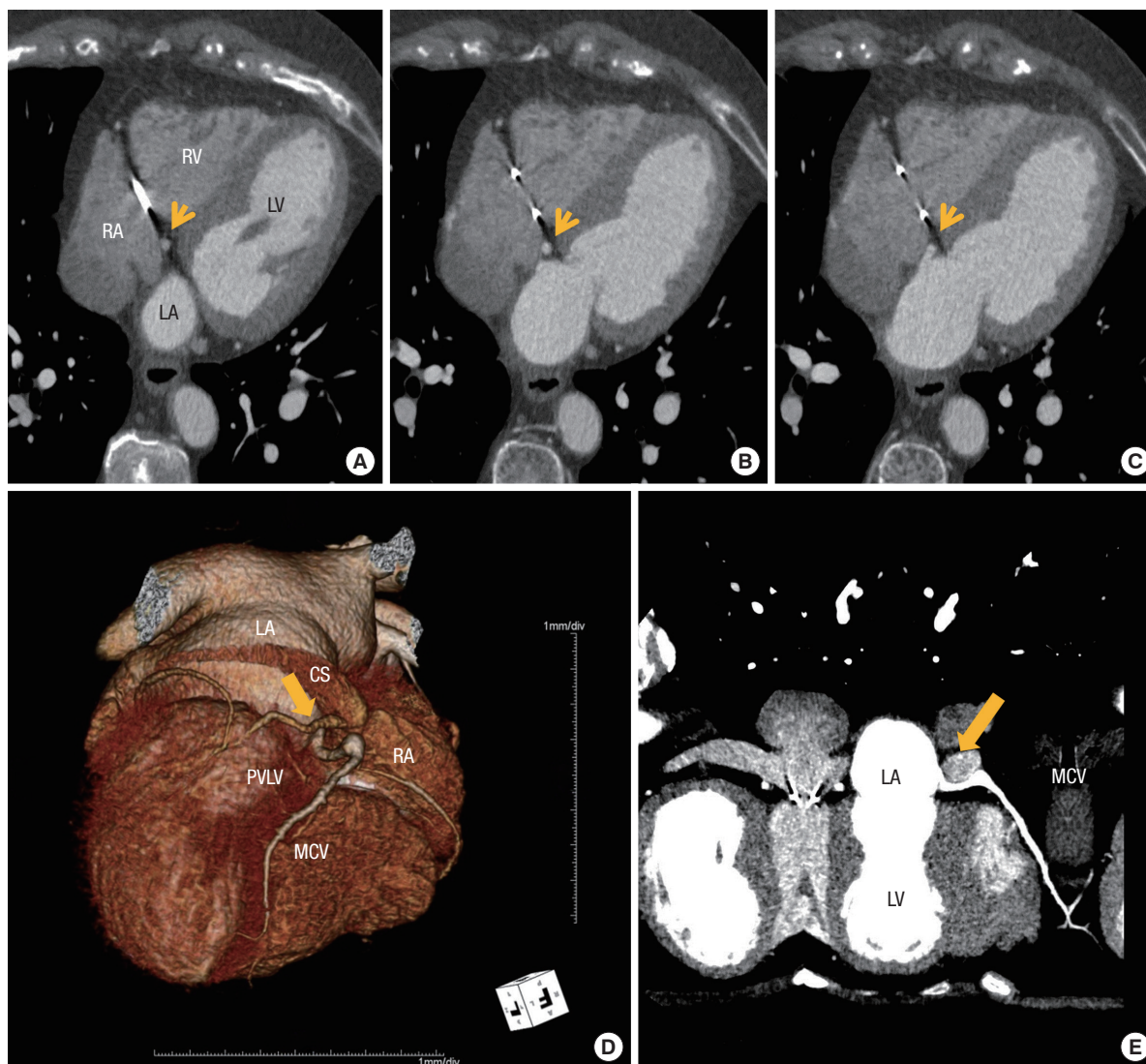


# Anomalous Middle Cardiac Vein Draining into the Left Atrium

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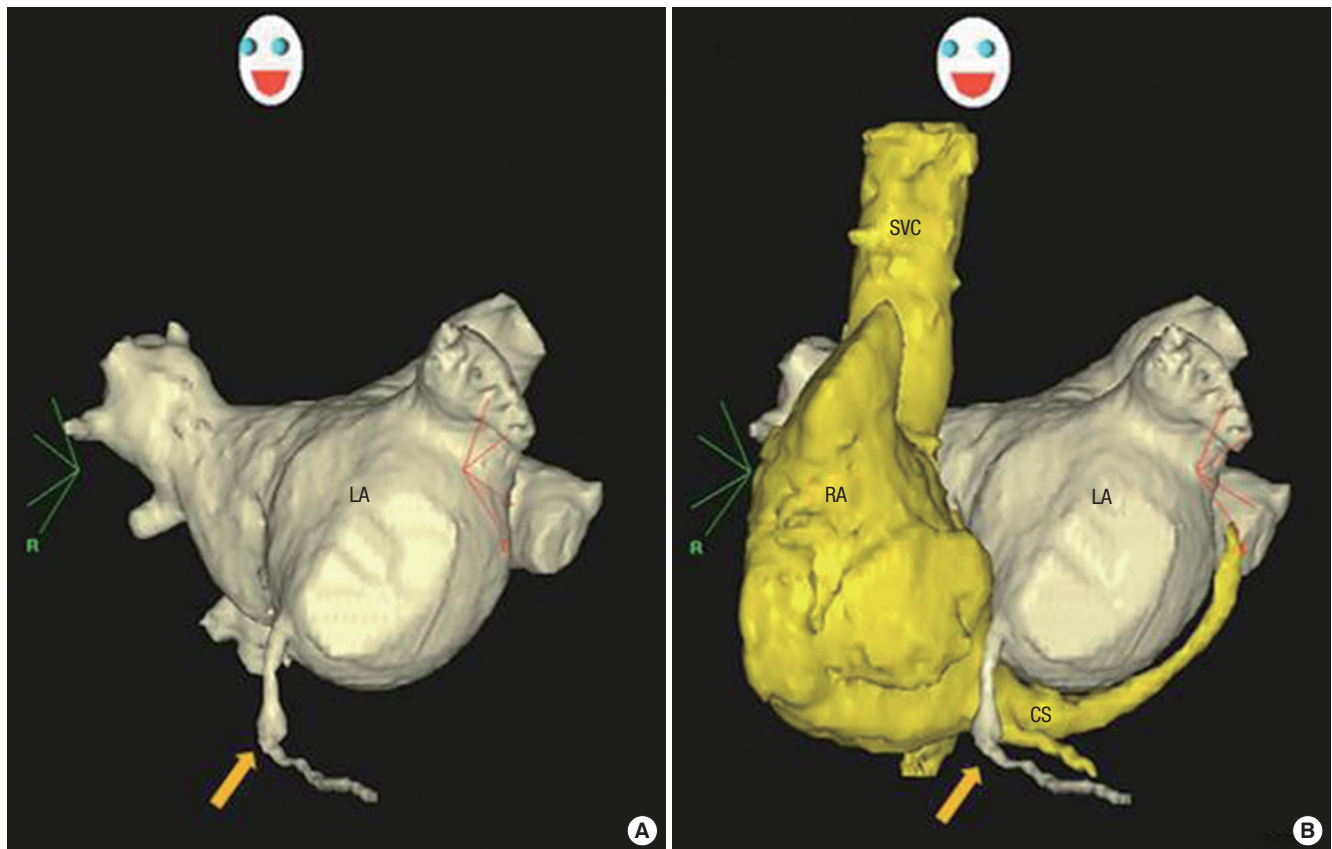
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**Fig. 1.** Cardiac computed tomography demonstrates the middle cardiac vein draining into the left atrium (yellow arrows). (A-C) Axial serial scan images of cardiac computed tomography after contrast dye injection. (D) The 3-dimensional volume rendering image of cardiac computed tomography. (E) The curved planar reformation image of cardiac computed tomography.

A 67-year-old woman was admitted for radiofrequency catheter ablation (RFCA) of paroxysmal atrial fibrillation. She had undergone patch closure of atrial septal defect 7 years before. Her arterial blood oxygen saturation level was 94.6% without any

oxygen supplement. Her electrocardiogram, chest X-ray, and echocardiogram were within normal limits. She underwent cardiac computed tomography for the left atrial reconstruction before the RFCA. It revealed abnormal drainage of the middle



**Fig. 2.** CARTO® images clearly demonstrating the abnormal drainage of the middle cardiac vein into the left atrium (yellow arrows). (A) A 3-dimensional reconstructed image of the left atrium and pulmonary veins using CARTO®. (B) The 3D reconstructed image of both the atrium and pulmonary veins using CARTO®.

cardiac vein into the left atrium (Fig. 1). The other cardiac veins including the great cardiac vein and small cardiac vein drained into the coronary sinus normally. While she underwent RFCA, the abnormal drainage of the middle cardiac vein was also confirmed in the CARTO® image (Fig. 2). An anomaly of the cardiac vein has rarely been reported. Previously reported venous anomaly of the heart was anomaly of the great cardiac vein (1) or totally abnormal drainage of the cardiac veins (2). This is a unique case of an isolated anomalous drainage of the middle cardiac vein into the LA without any anomaly of the coronary sinus.

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