

licated that increased CIMT is a strong predictor of future cardiovascular events (2). CIMT is a noninvasive method performed using ultrasound imaging to measure the artery wall thickness (3). CIMT is a marker of subclinical atherosclerosis (asymptomatic organ damage) and should be evaluated in all asymptomatic adults or patients with a moderate risk of cardiovascular disease. Intima-media thickness values >0.9 mm should be considered abnormal (4, 5).

Linear mixed model (LMM) is generally recommended because of its potential to provide more suitable data in terms of temporal changes (6, 7). We agree with you about using LMM instead of the Friedman test because LMM can provide more information for our study.

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Response to: Percutaneous closure of a secundum atrial septal defect through femoral approach in an adult patient with interrupted inferior vena cava and azygos continuation

To the Editor,

We appreciated the paper of Alizade et al. (1) entitled "Percutaneous closure of a secundum atrial septal defect through femoral approach in an adult patient with interrupted inferior vena cava (IVC) and azygos continuation".

The authors clearly highlighted that interventional endovascular maneuvers normally coded for vascular access, materials, and technique, must be carefully re-evaluated in the preoperative planning, in case of congenital anomalies involving the systemic venous return to the right atrium.

Congenital anomalies of the deep thoracoabdominal venous system are caused by variations in the development during embryogenesis. Azygos continuation of the IVC, like the case described by the authors, is a very rare venous variant. It is characterized by the absence of the IVC segment between the renal and hepatic veins. Therefore, blood from the IVC segment is drained into the thorax by the azygos vein, while hepatic veins are directly connected to the right atrium (Fig. 1-3) (2). Generally, azygos continuation is clinically silent and is often incidentally recognized during imaging studies done for other clinical purposes.

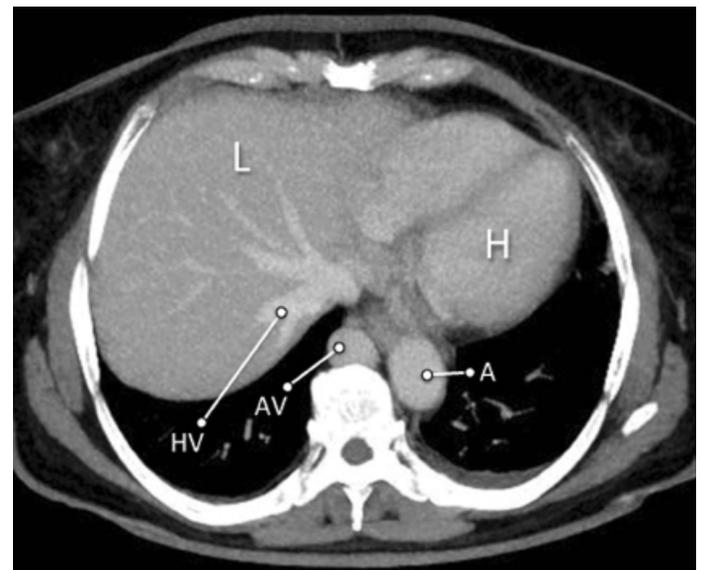


Figure 1. Contrast-enhanced multidetector computed tomography axial (1), coronal (2), and Sagittal (3) multiplanar reconstruction that shows the congenital anomalies azygos continuation of the inferior vena cava, with a dilated azygos vein (AV), normal superior vena cava (SVC), and hepatic vein (HV) of the liver (L) connected directly with the right atrium of the heart (H)

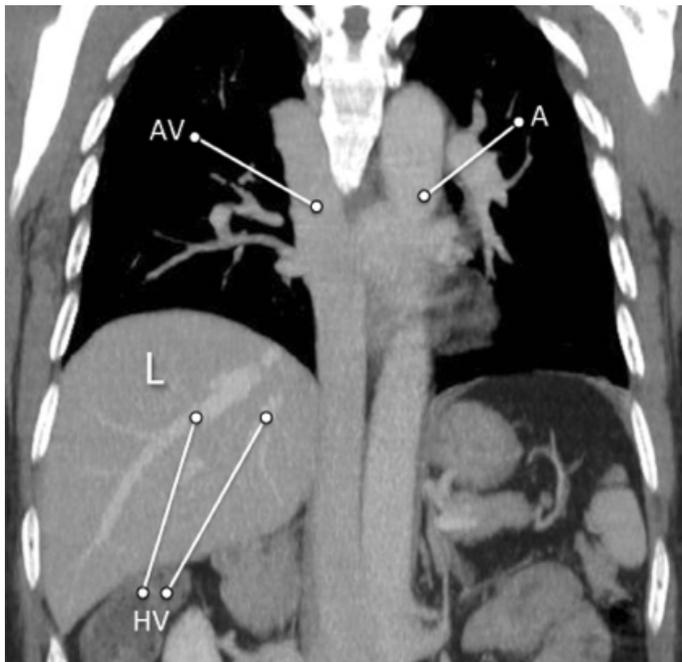


Figure 2. Contrast-enhanced multidetector computed tomography axial (1), coronal (2), and Sagittal (3) multiplanar reconstruction that shows the congenital anomalies azygos continuation of the inferior vena cava, with a dilated azygos vein (AV), normal superior vena cava (SVC), and hepatic vein (HV) of the liver (L) connected directly with the right atrium of the heart (H)

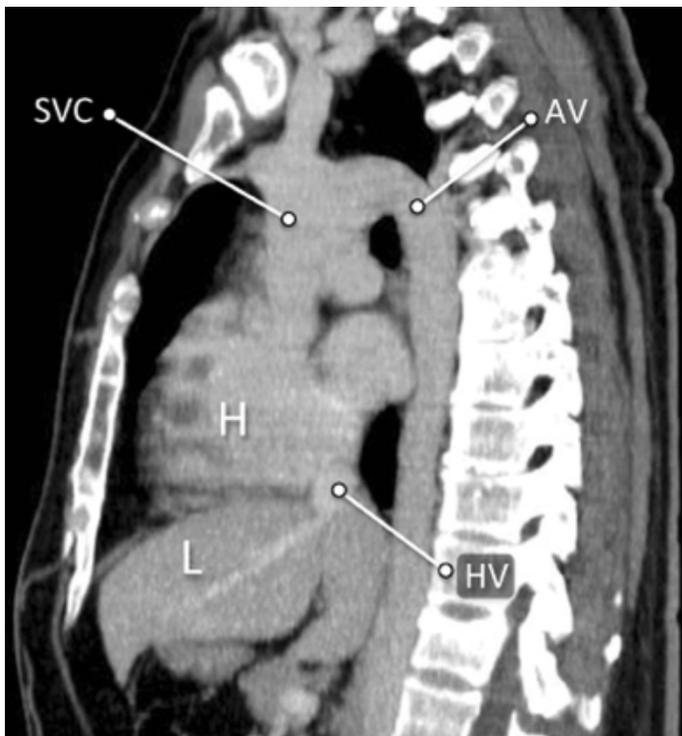


Figure 3. Contrast-enhanced multidetector computed tomography axial (1), coronal (2), and Sagittal (3) multiplanar reconstruction that shows the congenital anomalies azygos continuation of the inferior vena cava, with a dilated azygos vein (AV), normal superior vena cava (SVC), and hepatic vein (HV) of the liver (L) connected directly with the right atrium of the heart (H)

Multidetector computed tomography is the first-line noninvasive diagnostic method for characterizing the vascular anatomy and its anomalies (3). So, any possible venous variant, including azygos continuation, has to be detected in the preoperative setting of conventional thoracoabdominal surgery and percutaneous endovascular venous and cardiac procedures to plan the most suitable therapeutic approach (1-4).

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Author's Reply

To the Editor,

We would like to thank the authors for their valuable comments on our case report study (1). Secundum atrial septal defect in patients with interrupted inferior vena cava (IVC) and azygos continuation is a very rare condition. The patient with azygos continuation of the IVC is usually asymptomatic and it is detected incidentally (2, 3). These anomalies are usually detected during computed tomography (CT) angiography taken for other reasons. Also, contrast should be given from the lower and