

## A rare case of left inferior vena cava with azygous continuation and presence of the suprarenal segment of a right inferior vena cava.

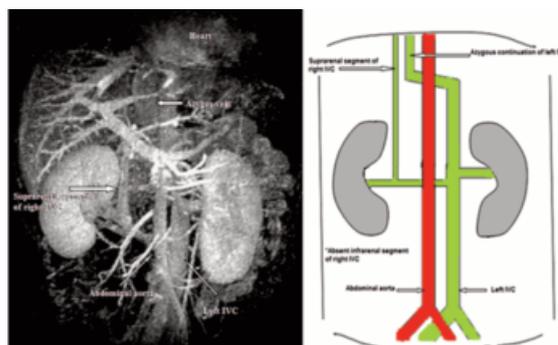
Dear Editor,

The inferior vena cava (IVC) is a single vein located to the right of the abdominal aorta. When failure in the process of embryogenesis occurs, this may lead to congenital anomalies of the IVC.

A 29-year-old male patient presented with a two-week history of chest pain and coughing. Initial imaging showed a right cardiophrenic angle opacification on chest radiograph and dilatation of the azygos vein on contrast-enhanced lung computerized tomography imaging. Subsequent magnetic resonance imaging of the thorax and abdomen revealed a left IVC (diameter: 16 mm) crossing posteriorly to the abdominal aorta and draining into the azygos vein (diameter: 13 mm) (Figure 1). The suprarenal segment of a right IVC (diameter: 9 mm) was also noted ascending parallel to the abdominal aorta and draining into the superior vena cava, which in turn drained into the right atrium of the heart. The hemiazygos vein was present with no obvious abnormality.

On review of the literature the most common IVC anomalies involve a double IVC (1-3%), left-sided IVC (0.2-0.5%), and azygous continuation of a right-sided IVC (0.6%)<sup>1</sup>. This is the first case to report on such a complex IVC variant.

IVC abnormalities have been associated with congenital heart anomalies, asplenia/polysplenia syndromes and situs anomalies<sup>1</sup>. There is a slight preponderance in males and an association but no genuine link with renal and testicular malignancy<sup>2</sup>. IVC abnormalities can cause clinical problems during retroperitoneal surgery, diagnostic imaging and interventional radiology<sup>1-3</sup>. Increased awareness is therefore necessary for physicians that may be involved with these anomalies in clinical practice.



**Figure 1.** On the left, coronal image of magnetic resonance angiography with contrast enhancement. The left inferior vena cava (IVC), azygous continuation of the left IVC, and the suprarenal segment of the right IVC are visualised. On the right, schematic representation.

### References

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**Keywords:** Inferior vena cava, azygos vein, imaging

### Conflict of interest

None.

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