

Double inferior vena cava mimicking lymphadenopathy

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A 78-year-old man with no antecedent pathology presented with deterioration of his general state of health and 8-month history of urinary symptoms (frequent daytime urination, difficulty in starting urination, dribbling of urine, and decreased force of urinary stream). Physical examination showed a slim man (BMI 19 kg/m²) with dry and wrinkled skin. Digital rectal examination revealed an enormously enlarged, hard, irregular prostate. Urine test detected microscopic hematuria. Prostate-specific antigen was high (18 ng/mL). Ultrasonography confirmed the diagnosis of an enormous heterogeneous prostate and revealed a left paraaortic ‘adenopathy’ measuring 2 cm. Axial angio-CT scan, however, suggested that the paraaortic mass was due to vena cava developmental anomaly (**Figure 1**). Coronal CT scan reconstruction revealed a double inferior vena cava (IVC) (**Figure 2**), with right and left branches lying alongside a calcified abdominal aorta.

Embryogenesis of the IVC is a complex process involving the development, regression, anastomosis, and replacement of three pairs of embryonic veins (posterior cardinal, subcardinal, and supracardinal veins). A double IVC is a rare congenital anomaly (with an incidence of 0.2% to 3%) and is mostly related to failure of regression of the left supracardinal vein.¹ Radiologically, the presence of a double IVC can be mistaken for a pathological lesion such as lymphadenopathy or left pyeloureteric dilatation.^{1,2} A double IVC should be recognized as it can have significant clinical implications, especially during retroperitoneal surgery or in the treatment of thromboembolic diseases.³

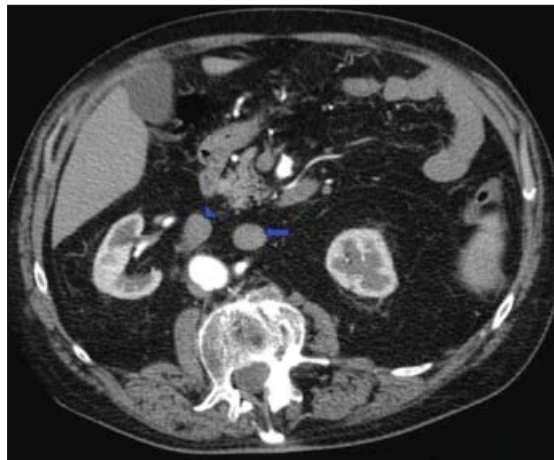


Figure 1. Axial abdominal angio-CT scan shows the abdominal aorta surrounded by the right inferior vena cava (arrowhead) and a similar left formation (arrow), suggesting an abnormality of vena cava development.



Figure 2. Coronal abdominal CT scan with reconstruction shows the inferior vena cava with right (arrowhead) and left (arrow) branches. Note the enormous prostate (star).

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