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Case Report

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A rare presentation of double inferior vena cava in a patient of lymphoma: a case report

Abstract

A 50 years old male patient of Hodgkin's Lymphoma presented to Oncology department of NORI hospital with undiagnosed double IVC. It is a rare finding in Radiologic studies; it is due to persistence of both supracardinal veins. Its symptomatic presentation is even rarer. The estimated incidence is1.5% (0.2-3%).[1]

Keywords: Duplication, Inferior Vena Cava, Caval Abnormalities, Thromboembolic disease, Lymphoma

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Introduction

Double IVC is a vein abnormality that is present from birth (congenital).Individuals with this anomaly has two IVC instead of one. Double IVC does not cause any symptoms. It is usually diagnosed when imaging such as CT, MRI performed for other reasons. Duplication of IVC is a rare finding in Radiologic studies and its coincidence with thrombosis is even rarer.[2]

Case report

A 50 years old male patient came to NORI hospital with lump over Right Inguinal region. He felt that swelling 01 year back. It was gradually increasing in size without any pain and symptoms. He is a known Diabetic for 7-8years and a chain smoker for almost 35 years. He was examined and investigated by oncologist, his biopsy revealed Hodgkin's Lymphoma. Patent then sent to Radiology Department for detailed imaging evaluation of the disease. After explaining the process of CT investigation and obtaining informed written consent from the patient's attendant a Contrast enhanced CT scan of Neck, Chest. Abdomen and pelvis was performed with a 16 slice Helical CT scanner using 5.0mm thickness, 1.2 pitch, 1sec revolution time, 5 mm reconstruction interval and 110 ml of contrast medium injected at rate of 2ml/sec.

A first acquisition, including Neck and chest was obtained 35 sec after beginning of contrast medium injection and a 2nd acquisition, including upper and lower abdomen and pelvis was obtained 65 sec after contrast injection. CT scan revealed enlarged right sided cervical, Mediastinal and bilateral Inguinal lymph nodes. In addition to this, unusual appearance of IVC was found, that is contrasting filled IVC on both sides of Aorta. Left sided IVC commencing from left iliac vein and crossing anterior to Aorta at level of renal vein to join right sided IVC.

On basis of CECT findings Diagnosis of Duplicated IVC was made. The patient had no history of previous IVC thrombosis and venous instrumentation such as filter or catheter placement.

Discussion

The IVC is composed of four segments, Hepatic, Suprarenal, Renal and Infrarenal[3] Duplication of IVC is a rare vascular anomaly but this caval abnormality needs to be recognized, especially in association with Renal anomalies like crossed fused ectopia or circumaortic renal collar.[4,5]

Anomaly of IVC is a rare example of congenital condition that predisposes to thromboembolism. Presumably by favoring venous stasis[6] (Figure 1 & 2).

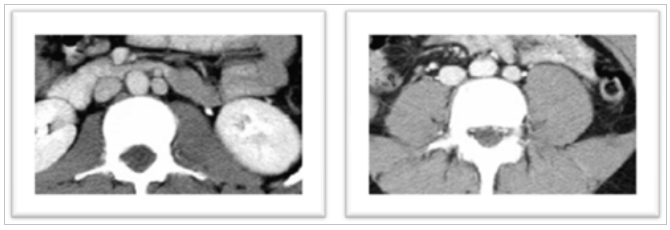

Figure 1 CECT scan abdomen of the patient showing double IVC.

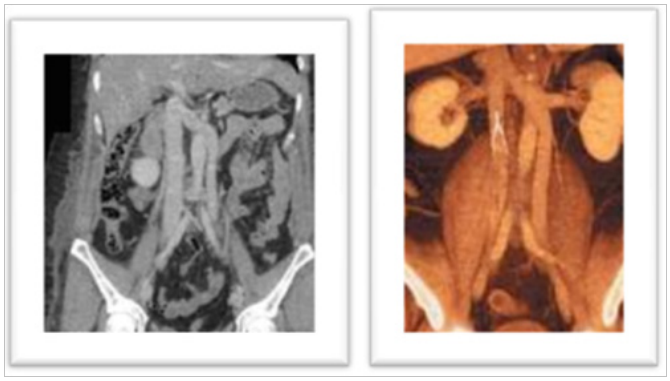

Figure 2 Coronal reconstruction images showing duplicated IVC.

During 7-10 weeks of gestation posterior cardinal vein appears first but forms only distal IVC i.e. iliac bifurcation. Two subcardinal vein appears next, left sub cardinal vein regresses and right sub cardinal vein forms suprarenal IVC. Supracardinal veins appear last, left supracardinal vein regresses and right supracardinal vein forms infrarenal IVC. IVC duplication results from persistence left supracardinal vein.[7]

Though asymptomatic, double IVC has important clinical implications when attempting caval filtration or when retroperitoneal surgery is performed8.The double IVC may be associated with recurrence of pulmonary thromboembolism if this anatomical variation goes undiagnosed. Major differentials are lymphadenopathy, Aortic aneurysm, retroperitoneal cysts and transposition of IVC (IVC on left side of aorta only).

References

1. Mayo J, Gray R, St Louis E, et al. Anomalies of the IVC. *AJR Am J Roentgenol.* 1983;140(2):339-345.
2. De Rosa V, Catalano O, de Lutio di Castelguidone E, et al. Segmental Septation of the Inferior Vena Cava. *AJR Am J Roentgenol.* 2005;185(5):1377.
3. Royal SA, Callen PW. CT evaluation of anomalies of IVC and Left renal vein. *AJR Am J Roentgenol.* 1997;132(5):759-763.
4. Smith TR, Frost A. Anomalous IVC associated with horseshoe Kidneys. *Clin Imaging.* 1996;20(4):276-278.
5. Milani C, Constantinou M, Berz D, et al. Left sided inferior vena cava duplication and venous thromboembolism: case report and review of literature. *J Hematol Oncol.* 2008;1: 24.
6. Chuang VP, Mena CE, Hoskins PA. Congenital anomalies of the IVC. Review of embryogenesis and presentation of a simplified classification. *Br J Radiol.* 1974;47(556):206-213.
7. Zangan SM, Van Ha TG. Duplication of the Inferior Vena Cava. *Appl Radiol.* 2012;41(5):30A-30B.

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