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IS THERE A CASE OF VENA CAVA INFERIOR ABSENCE WITHOUT THROMBOEMBOLISM IN ELDERLY?

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ABSTRACT

Hemiazygos continuation of the inferior vena cava generally represent with idiopatic deep vein thrombosis in young age. Radiological imaging, such as computed tomography and magnetic resonance imaging, are important to detect congenital absence or agenesis of the inferior vena cava, even if there are no symptoms or pathologies. In our article we present a male patient with absence vena cava inferior who without thromboembolism history and quite advanced age according to the literature. Care should be taken for venous anomalies such as absence oragenesis of the inferior vena cava to avoid injury and morbidity when planning thoracic surgery.

1. Introduction

Hemiazygos continuation of the inferior vena cava (IVC) is a rare anomaly. Generally, this conditions represent with idiopatic deep vein thrombosis (DVT) in young age (under 30) [1,2]. Here we present a rare case who had complate congenital absence oragenesis of the inferior vena cava (AIVC) and supra renal variation, elderly (quite advanced age according to the literature), without deep vein thrombosis and other symptoms, diagnosis insidentally.

2. Case Report

A 75-year-old male presented to our hospital with one -year history of cough, expectorate sputum and dry throat. The patient has no other significant past medical history, and his family history was noncontributory. He has 60 pack-years smocking history. Pulmonary examination was significant for rales at the both lung base. The another part of his physical examination was normal. During examination could'nt observed deep vein thrombosis finding of the patient lower extremities.

The chest radiograph demonstrates numerous poorly defined small opacities throughout both lungs and a pattern of fine reticulation. With a preliminary diagnosis of hypersensitivity pneumonia computed tomography (CT) scan was performed. In CT scan, it was revealed that the absence of the inferior vena cava and dilated hemiazygos vein were evident. Also, left renal vein and right renal vein drains to the vena hemizygos. (Figure 1, 2 a-b).

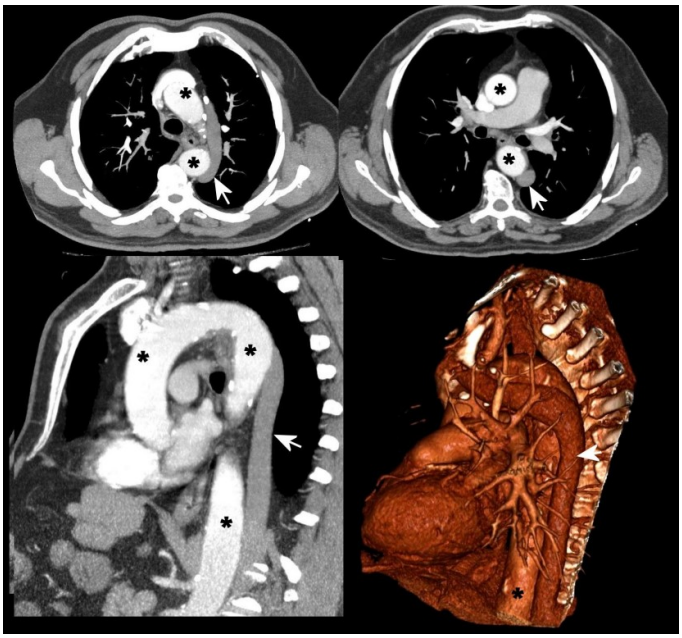

Figure 1 (Thorax CT scan and 3D reconstruction): Absence of the inferior vena cava and dilated hemiazygos vein. *Aorta, ⟶ Hemiazygoz

3. Discussion

AIVC is a very rare anomaly and its incidence is 0.0005 –1% in the general population [1-3]. The reasons of the AIVC are not fully understood [2]. Early weeks of gestational development embryonic veins coalesce or intrauterine thrombosis are keep responsibleto ocur AIVC [2,3].Generally this conditions represent with idiopatic DVT without risk factors or clotting defects in young age (under 30 year old) [1,2]. Also, venous insufficiency, hematuria, other congenital abnormalities [2] and pulmonary embolism [1], venous ulceration can be appear with AIVC. Some cases can detect incidentally in radiologic workup [4] as in this case. Enough data were not found in the literature regarding asymptomatic incidence rates.

Radiological examinations revealed the absence of IVC lumen and the presence of venous collaterals communicating with the azygous and hemiazygous venous system [2]. Hemiazygos vein was developed in our case. Computed tomography (CT) and magnetic resonance imaging (MRI) are useful for diagnostic purposes [1,4]. There are some studies recommended to CT in all young patients with an idiopathic DVT [5]. Also there are studies suggesting that ultrasonagraphy (USG) is a useful diagnostic tool in

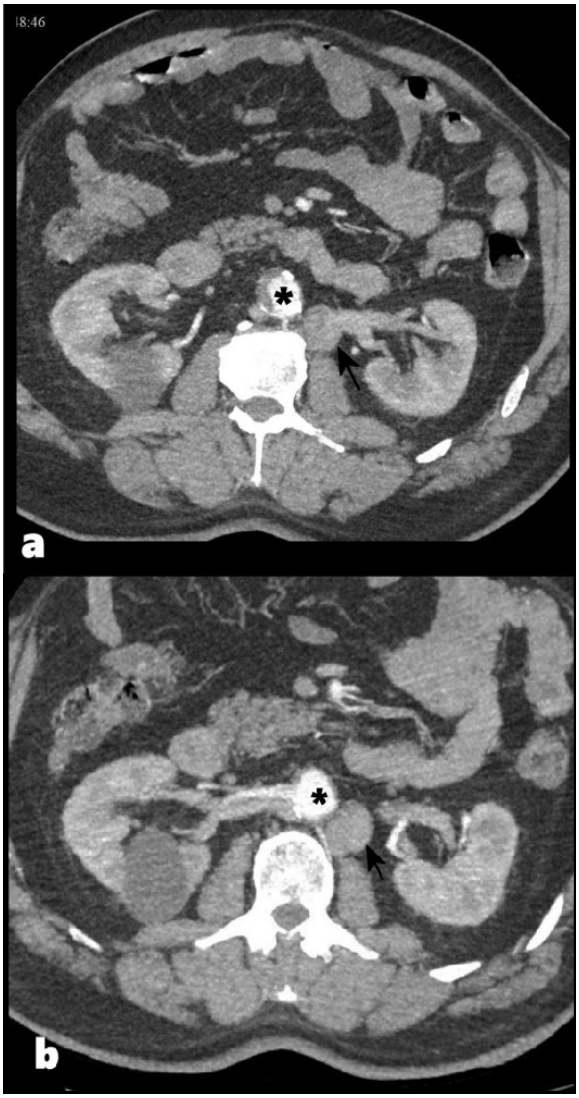

Figure 2 a,b (Thorax CT scan) : Left renal vein and right renal vein drains to the vena hemizazyos. *Aorta, ⟶ Hemiazygoz

AVIC [2]. In this case we incidentally found AIVC in CT examination.

Current treatment options are conservative therapy or less commonly venous bypass [5]. Anticoagulant therapy is recommended when accompanying deep vein thrombosis [1,4]. Generally anticoagulant therapy is enough for symptoms [4]. Also can use elastic stocking, limb elevation, avoid to risk factors (excessive physical exertion, immobilization, smoking) [1]. Antithrombolytic therapy is recommended for long term because antithrombolytic therapy is at risk of recurrence [4]. There are few case presentations that apply surgical treatment in AVID [5-7]. There are no standardized treatment guidelines for DVT caused by AIVC [1]. Since no pathology or AVID related pathology was present in our patient, we decided to follow up with conservative management.

This case is quite advanced age according to the literature. Contrary to expectations, AIVC can be seen at an advanced age without symptoms, elderly, without deep vein thrombosis and other symptoms. We found this anomaly when examining the patient for lung hypersensitivity pneumonia diagnosis. Radiological imaging such as CT-MRI are important in AIVC, even if there is no symptom or pathology. Care should be taken for venous anomalies such as AVIC to avoid injury and morbidity when planning thoracic surgery.

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