

Title:
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“Hot quadrate lobe spot” sign in chronic superior vena cava obstruction

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Dear Editor,

We present the case of a 65 year-old male patient who consulted for swelling of the face and neck after pacemaker implantation. Contrast-enhanced chest computerized tomography (CT) confirmed a thrombus within the superior vena cava (SVC), so therapy with oral anticoagulants was initiated with good clinical response and resolution of symptoms. Follow-up contrast-enhanced CT of the chest and the abdomen showed a focal hyperdense area well shaped in IV hepatic segment during arterial and portal venous phases, associated to persistence of the SVC repletion defect and presence of multiple superficial venous collaterals in the right anterolateral thoracoabdominal wall. The hepatic image corresponds to the sign of the "hot spot" or "hot quadrate lobe", a hepatic pseudolesion that should not be confused with other focal hypervascular lesions.

Discussion

The "hot spot" or "hot quadrate lobe" sign describes a hypervascularized area in the segment IVa of the liver (quadrate lobe) that appears in some patients with obstruction of the superior vena cava or any of its tributary branches. This sign is caused by the development of collateral circulation between the superior vena cava and the left portal vein through the superficial thoracoabdominal and paraumbilical veins. This sign manifests as a focal area of hyperenhancement on the IV hepatic segment during arterial and early venous phases that may become isodense to the liver parenchyma on delayed phases.

The differential diagnosis of this radiological finding includes other hypervascular lesions such as hemangiomas, focal nodular hyperplasia and hepatocellular carcinoma.

It is important to know the radiological semiology of hot quadrate lobe spot sign in abdominal studies, since it can sometimes lead to the diagnosis of an undetected thoracic central venous occlusion and should not be confused with other liver focal lesions.

BIBLIOGRAPHY

1. Dickson AM. The focal hepatic hot spot sign. *Radiology* 2005; 237(2):647-648.
2. Kalisz K., Enzerra M., Ansari-Gilani K. *Cardiovascular findings on cross-sectional imaging: spectrum of incidental and critical findings and clinical relevance for the abdominal radiologist. Abdominal Radiology* 2019; 44, 1161–1180 (2019).
3. Kapur S., Paik E., Rezaei A., Vu D.N. *Where There Is Blood, There Is a Way: Unusual Collateral Vessels in Superior and Inferior Vena Cava Obstruction. RadioGraphics* 2010; 30(1), 67–78.
4. Sushilkumar K. Sonavane, Desmin M Milner, Satinder P Singh et al. *Comprehensive Imaging Review of the Superior Vena Cava. RadioGraphics* 2015; 35:1873–1892.
5. Virmani V., Anupam L., Chirag K. A. et al. *The CT Quadrate lobe hot spot sign. Annals of Hepatology* 2010; 9 (3): 296-298.

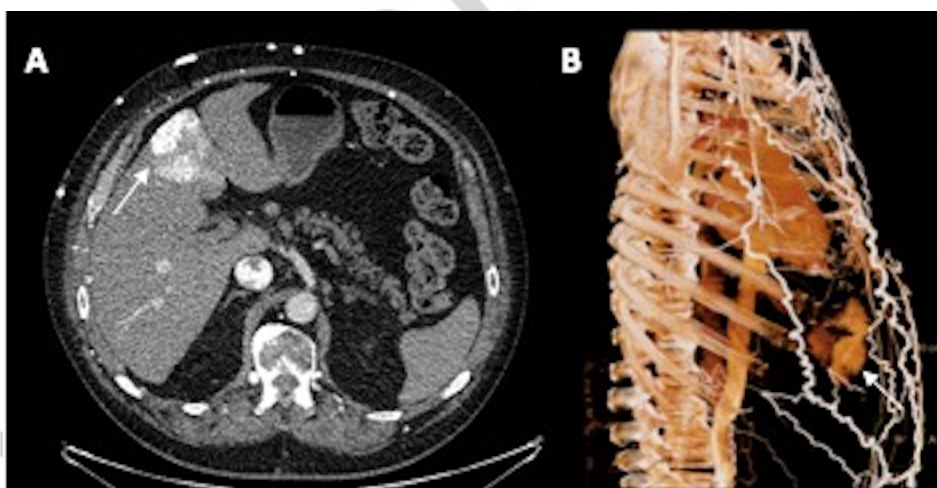


Figure 1. Contrast-enhanced arterial phase CT (A) and volume-rendered image (B) demonstrate a focal well shaped hyperdense area within segment IV (arrow), subcutaneous venous collaterals on anterior wall and early enhancement of the

inferior vena cava.

Accepted Article