Received: 19 January 2023 | Accepted: 30 January 2023

DOI: 10.1002/emp2.12912

JACEP OPEN
JOURNAL OF THE AMERICAN COLLEGE OF EMERGENCY PHYSICIANS OPEN
A GLOBAL JOURNAL OF EMERGENCY MEDICINE
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General Medicine

Fulminant hepatic failure: An unusual suspect

Nathalie Layios MD, PhD[1,2] | **Dimitri Mathieu MD**[1] | **Romain Dumont MD**[1] | **Romain Gillard MD**[3]

[1]Department of Intensive Care, University Hospital of Liege, Liege, Belgium

[2]Laboratory of Cardiovascular Sciences, GIGA Institute, University Hospital of Liege, Liege, Belgium

[3]Department of Radiology, University Hospital of Liege, Liege, Belgium

Correspondence
Nathalie Layios, MD, PhD, Department of Intensive Care, University Hospital of Liege, Liege, Belgium.
Email: nathalie.layios@chuliege.be

1 | PATIENT PRESENTATION

A 66-year-old man was admitted to the emergency department for bradypsychia and asthenia. He had a history of alcohol consumption and epilepsy with no medical follow-up. Laboratory test results were compatible with acute liver failure and hyperammonemic encephalopathy: international normalized ratio, 3.35; fibrinogen, 2.25 g/L; total/direct bilirubin, 9.27/4.96 mg/dL; aspartate aminotransferase, 2595 U/L; alanine aminotransferase, 1958 U/L; ammonia, 125 µmol/L.

2 | DIAGNOSIS

2.1 | Inferior vena cava thrombosis

Axial (Figure 1A) and coronal (Figure 1B) contrast-enhanced computed tomography shows a 4-cm wide hepatic mass in the VII segment (arrowheads) invading the right sus-hepatic vein (voided arrowheads) and inferior vena cava (IVC; voided arrows). The invaded veins are disproportionately enlarged for a cruoric thrombus, which measures 14 cm in the cranio-caudal axis and extends to the right atrium (arrow). Transthoracic echocardiography (Figure 2) shows a bulky thrombus emerging at the atrio-caval junction. Several therapeutic options, such as in situ thrombolysis, fibrinolysis, and surgical resection, were discarded as first-line therapy because of the risks of thrombus fragmentation, secondary pulmonary embolism, and bleeding. Despite continuous infusion of therapeutic unfractionated heparin and supportive measures, the patient died a week later.

Elevated alpha-fetoprotein levels (33,460 µg/L) confirmed probable hepatocellular carcinoma causing intraluminal extension of tumor thrombosis into the IVC, which confers a very poor prognosis in the absence of curative surgical resection. Differential diagnoses, in the absence of congenital abnormalities of IVC, include primary leiomyosarcoma of the vessel wall or adjacent organ carcinoma causing extension of tumoral thrombosis, such as renal cell or adrenocortical carcinoma and retroperitoneal metastasis.[1,2]

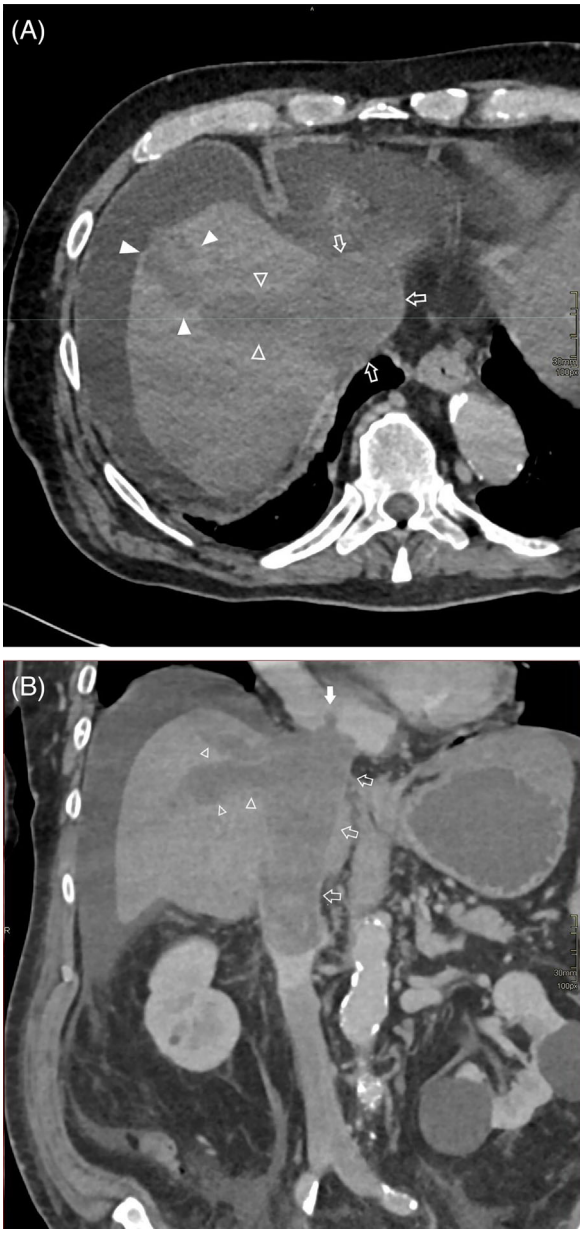

FIGURE 1 Axial (A) and coronal (B) contrast-enhanced computed tomography shows a 4-cm wide hepatic mass (arrowheads) invading the right sus-hepatic vein (voided arrowheads) and inferior vena cava (voided arrows). The invaded veins are enlarged, and the tumor thrombus extends to the right atrium (arrow). Peri-hepatic ascites are also present.

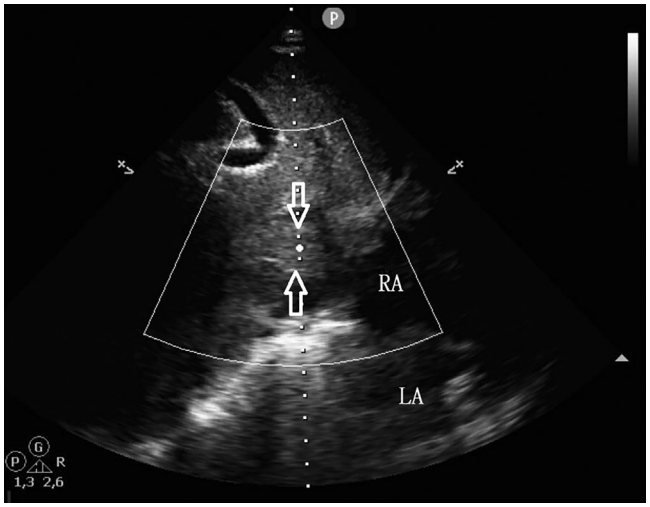

FIGURE 2 Bulky thrombus in the lower vena cava at the atrio-caval junction between the arrows. LA, left atrium; RA, right atrium.

ORCID

Nathalie Layios MD, PhD https://orcid.org/0000-0002-1360-4917

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How to cite this article: Layios N, Mathieu D, Dumont R, Gillard R. Fulminant hepatic failure: An unusual suspect. *JACEP Open*. 2023;4:e12912. https://doi.org/10.1002/emp2.12912