

Obstruction of the inferior vena cava by extrinsic compression of amebic liver abscess (ALA) in the general hospital of the east “Dr. Domingo Luciani”, Caracas, Venezuela

Keywords: inferior vena cava, white cell count, ultrasound, enzyme linked immunosorbent assay

Introduction

Amebiasis occurs in 10% of the world population. Vascular complications include thrombosis or obstruction of the inferior vena cava (IVC).¹ The protozoa parasite *Entamoeba histolytica* is an important cause of morbidity and mortality worldwide. Infections with *E. histolytica* are common and are one of the major health problems in developing countries. Humans are the host of *E. histolytica* and there are no other known animal reservoirs of this parasite. Transmission of *E. histolytica* occurs in areas with poor sanitation by contamination of drinking water or food with human feces. Water-associated outbreaks of *E. histolytica* disease have been reported. Transmission of *E. histolytica* can also be sexual.² ALA usually present with abdominal pain, fevers and tender hepatomegaly. Laboratory findings include anaemia, elevated white cell count (WCC) and elevated hepatic enzymes. The usual imaging modality to establish the presence of an abscess is ultrasound (US) or it may be CT scanning. The diagnosis is confirmed with serology studies such as Enzyme Linked Immunosorbent Assay (ELISA), Polymerase Chain Reaction (PCR) or Indirect Haemagglutination (IHA) with all having a high sensitivity and specificity.³ The most common extraintestinal complication of *Entamoeba histolytica* is amebic liver abscess (ALA). Hepatic vein and inferior vena cava (IVC) thrombosis are rare but well-documented complications of ALA, typically attributed to mechanical compression and inflammation associated with a large abscess.⁴

Objectives

To describe the findings of the USA and CT abdomen pelvis of a patient with obstruction of the IVC.

Materials and methods

Patient-reported data are used, such as history, clinic, laboratory, USA and CT of the abdomen and pelvis with contrast administration.

Case report

45-year-old male patient, with no known disease history with pain in the right upper quadrant, fever at 39°C, continues, preceding shaking chills later associated with lower limb edema reason why its goes to hospital where it is evaluated at abril 2018.

Results

US venous Doppler of the lower limbs was performed, without showing any alterations. In the USA, a cystic appearance mass with a defined capsule of 2000cc in volume causing extrinsic compression

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on IVC (Figure 1). Associating on CT abdomen pelvis with contrast subocclusive thrombus in IVC close to the confluence of the iliac veins (Figures 2 & 3).

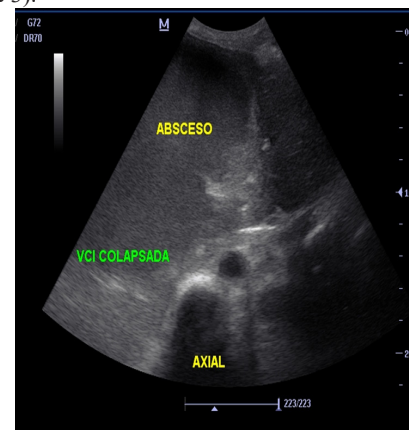


Figure 1 Cystic mass with a defined capsule of 2000cc in volume that causes extrinsic compression on IVC.



Figure 2 Sub-occlusive thrombus in the IVC near the confluence of the iliac veins.

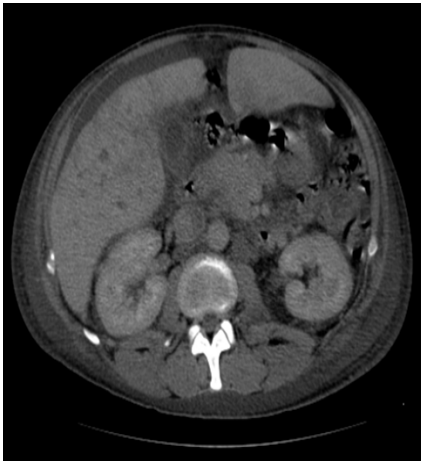


Figure 3 Subocclusive thrombus in the IVC near the confluence of the iliac veins.

Conclusions

Venous compression can be complicated by thrombosis adjacent to an abscess due to an inflammatory response. The rate of complications described in an amebic liver abscess is 10.3%.⁵ Clinicians working in nonendemic areas need to be aware that ALA is a rare but known cause of thrombosis.⁴

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Conflicts of interest

The authors declare that they have no conflicts of interest to disclose.

Financial disclosure

None.

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