An uncommon complication of liver abscess

Ajay Rathoon I1*, Mohamed Azeem S2, Mervin K Soman3, A Gowrishankar4, Monishaw T Waron5

1*Senior Resident-Department of General Medicine, Saveetha Medical College, Saveetha Nagar, Thandalam, Chennai 602 105
2Resident-Department of General Medicine, Saveetha Medical College, Saveetha Nagar, Thandalam, Chennai 602 105
3Assistant Professor-Department of General Medicine, Saveetha Medical College, Saveetha Nagar, Thandalam, Chennai 602 105
4Professor-Department of General Medicine, Saveetha Medical College, Saveetha Nagar, Thandalam, Chennai 602 105
5Intern-Department of General Medicine, Saveetha Medical College, Saveetha Nagar, Thandalam, Chennai 602 105
*Corresponding Author: Dr. Ajay Rathoon
Email id: rathoonajay@gmail.com

ABSTRACT
Liver abscess secondary to E.histolytica and other infections is commonly encountered in developing countries and travellers to endemic regions. There have been several studies discussing the uncommon formation of inferior vena caval/hepatic vein thrombosis caused by the extension of liver abscess. This case study highlights the rare occurrence of deep vein thrombosis involving bilateral iliac, common femoral, superficial femoral, popliteal and great saphenous veins along with multiple liver abscess in the absence of risk factors for deep vein thrombosis.

Keywords: Liver abscess, DVT, Entamoeba histolytica

INTRODUCTION
Acute infections play a role in increasing the risk of arterial cardiovascular events, but it also acts as a precipitating factor for deep vein thrombosis. This has been brought to light by a few studies. [8, 9] The following case study provides more evidence by establishing the occurrence of deep vein thrombosis in a case of multiple liver abscesses - an acute infection in a patient with no other apparent risk factor for deep vein thrombosis.

CASE HISTORY
A 39 year old male patient presented with the complaints of bilateral leg swelling and abdominal pain. History of fever present. History of weight loss present. Patient was not a known case of
diabetes mellitus, systemic hypertension, brochial asthma, tuberculosis or coronary artery disease. On admission patient’s vitals were stable. On general examination pallor present, icterus present and bilateral pedal edema present. In abdominal examination, diffuse tenderness was present with hepatomegaly. Other systemic examinations were normal.

INVESTIGATIONS

Investigations include Hb- 6g/dl, TC- 14000 cells/cu.mm, ESR- 55 mm/hr, platelet count- 3.5 lakhs/cu.mm, Sr. Potassium- 3.2 meq/L, total protein- 6.0, albumin- 3.5. urine routine examination and culture, stool routine examination and culture both yielded normal studies. Ultrasound abdomen showed multiple lesions in the liver. Contrast enhanced CT scan of abdomen showed hepatomegaly with multifocal liver abscess, the largest being in the 7th segment of liver. Multiple necrotic lymphadenopathy present. Acute thrombus present in bilateral common iliac, external iliac and common femoral veins seen. Ultrasound venous doppler showed thrombus in bilateral iliac, common femoral, superficial femoral, popliteal and great saphenous veins. Direct coombs test-negative. PT- 44.4, INR- 3.7, APLA-IgM- 3.20, APLA-IgG- 2.70, APLA-IgA- 1.9. Upper GI endoscopy was normal. AFP- normal.

Figure 1: CT showing multiple liver abscess- Transverse cut

Figure 2: CT showing multiple liver abscess - Sagital cut.
MANAGEMENT

Patient was put on antibiotics. Anticoagulants like heparin and acitrom were started. USG Guided pig tail catheter insertion done and liver abscess drained.

DISCUSSION

E.histolytica infection most commonly presents as amoebic colitis and liver abscess. Pyogenic liver abscess is caused by organisms like Klebsiella pneumoniae, E.coli, Staphylococcus and Enterococcus. [3, 5] Clinical features of a liver abscess would include fever, pain over the right upper quadrant or abdomen or epigastrum with/without radiation to right shoulder tip. On palpation enlargement of liver, liver tenderness, localized intercostal tenderness may be present [6]. Both ultrasonography and CT are widely used for the detection of liver abscess. The sensitivity of CT is far superior as it can visualize an impending perforation, ruptured abscess and obstruction of venous channels, although venous obstruction can be better visualized with a multiphasic CT angiography. Multiple lesions are seen in acute disease whereas in chronic cases solitary lesions are more common. [3] Right lobe of the liver is the most common site of abscess formation compared to the left. If abscess is present in caudate lobe of liver then aspiration of abscess using a catheter is tricky as the abscess is deep seated and surrounded by multiple vessels- in which case surgical approach is considered as last resort. [1]

Complications of liver abscess includes rupture into pleura through diaphragm or hematogenous spread to the lungs causing pleural effusion/pneumonitis, rupture into pericardium causing pericarditis/cardiac tamponade, intraperitonial rupture causing peritonitis. [3, 4, 6] Other rare complications include inferior vena caval/hepatic/portal and deep vein thrombosis. [1] Venous thrombosis is a rare but life threatening complication as it can lead to pulmonary embolism. In this case study the patient is found to have multiple abscess involving the 7th and 8th segments of liver along with deep vein thrombosis of bilateral iliac veins, common femoral veins, superficial femoral veins, popliteal veins and the great saphenous veins. The patient did not have any risk factors pertaining to deep vein thrombosis like surgery, trauma, hospital/nursing home confinement, myocardial infarction, congestive heart failure, varicose veins, liver disease, central venous catheter/pacemaker, neurological disease with extremity paresis or malignant neoplasm. [7] The patient was treated with antibiotics and anticoagulants (heparin and acitrom). The abscess was drained using a pigtail catheter.

CONCLUSION

- Acute infection should be considered as a risk factor for venous thromboembolism.
- Deep vein thrombosis is a rare complication of liver abscess.

REFERENCES


Source of Support: Nil. Conflict of Interest: None declared.