Purpose

To illustrate the utility of a continuous aspiration mechanical thrombectomy catheter in the tissue-proven determination and retrieval of hepatocellular carcinoma (HCC) tumor thrombus in the inferior vena cava (IVC) of a 61-year-old non-cirrhotic male with Hepatitis C on ledipasvir/sofosbuvir therapy and hepatic segment VIII lesion with right atrial invasion.

Results

A 61-year-old male with a history of Hepatitis C previously treated with ledipasvir/sofosbuvir with a history of type II diabetes, hypertension, coronary artery disease, hyperlipidemia and lower back pain presents to the emergency department for excruciating epigastric pain, lower back pain, and bilateral extremity swelling.

Four-phase liver computed tomography demonstrates an ill-defined, non-enhancing 4.5-cm lesion in the IVC with indeterminate features nonspecific for bland thrombus versus tumor thrombus.

The patient demonstrated multiple surgical comorbidities and was not a candidate for open surgical thrombectomy.

Following right common femoral venous access, an Indigo CAT8 (Penumbra, Alameda, CA) was advanced into the IVC.

Manual suction mode of a continuous aspiration mechanical thrombectomy catheter was performed to obtain tissue sample from the IVC thrombus.

The patient tolerated the procedure well with no immediate or long-term complications at 6 months follow-up.

To our knowledge, this is the first report of a transvascular aspiration intra-IVC biopsy using continuous aspiration mechanical thrombectomy for determination of thrombus etiology.

Further studies should be performed to investigate the utility of continuous aspiration mediated thrombectomy in the diagnostic evaluation of IVC thrombus with indeterminate radiologic features in nonsurgical candidates.

Case

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