

Emergency department diagnosis of mesenteric venous thrombosis initiated by US

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Background:

Acute portal vein thrombosis is a significant pathology that warrants further investigations to determine the cause and treat accordingly, also to prevent complications.

Intestinal ischemia is one of the common complications of APVT as part of the mesenteric venous ischemia, such complication can lead to mortality or significant morbidity. Emergency department ultrasound is a part of the diagnostic cascade in such cases and can help not to miss such cases specially those with low suspicion .

Abdominal ultrasound scan was ordered to R/O gallbladder pathology, but it came with diagnosis of portal vein thrombosis with obvious thrombus in lumen with absence of doppler signal

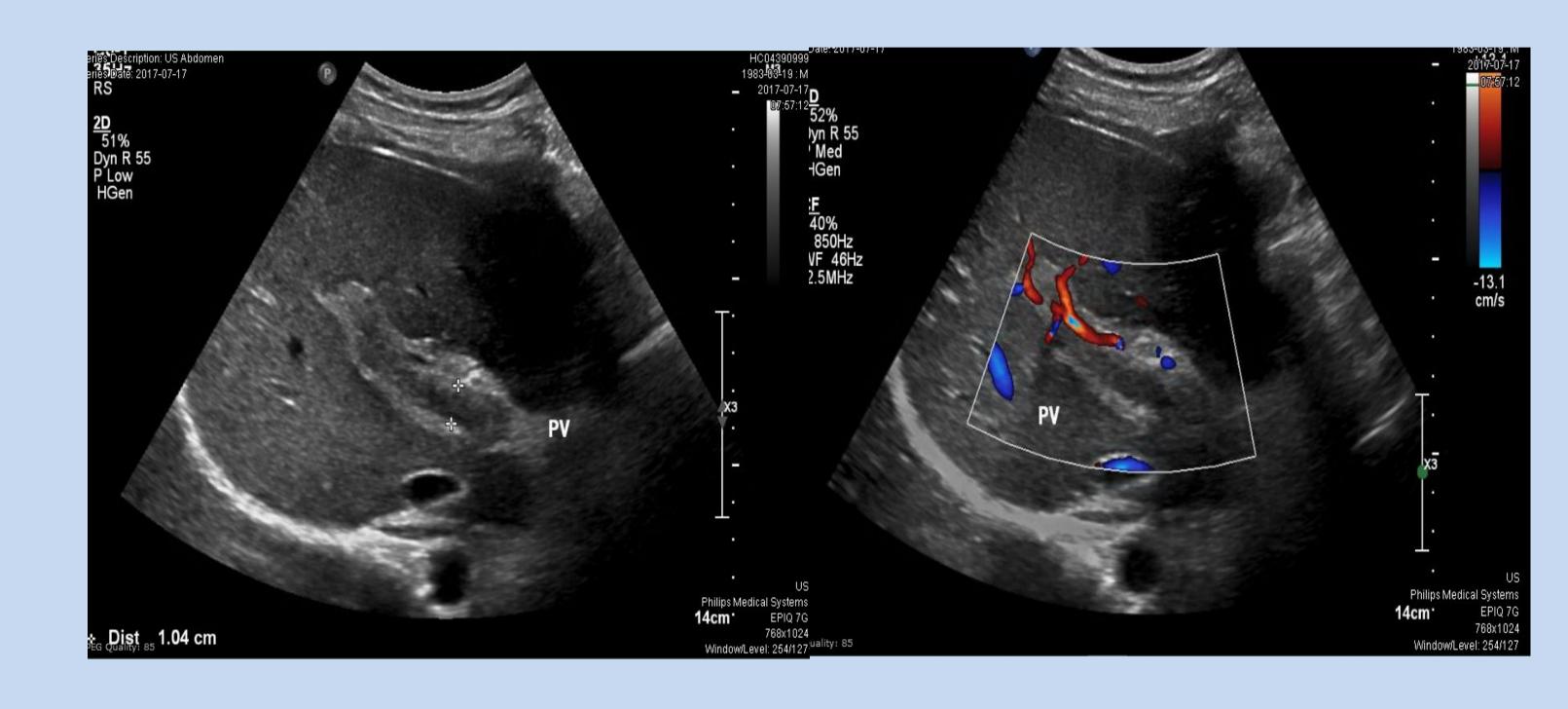


Image 1: APVT in abdominal US and no doppler signal on the PV

Patient:

our patient is 33 years old gentleman of Asian ethnicity presents to our ED with a complain of epigastric pain that is related to meals and was diagnosed previously as PUD in other facility. Patient's concern was to get appointment for upper GI endoscopy as diagnostic procedure for PUD.

. He noted that pain is getting worse and became more to the right hypochondrium.

Examination shows mild tenderness in right hypochondrium .lab investigations show mild elevation in ALT to 3 folds.

Rest of examination was unremarkable and patient had no previous DVT or thrombotic events.

Patient was admitted to the medical floor where a CT scan with contrast was ordered the results show non – opacification of entire portal circulation including prtal, splenic and superior mesenteric veins.

Patient was anticoagulated after upper GI endoscope ruled out esophageal varices.

Later, auto-immune assays show high level of both Lupus confirm and screen tests. Also, patient has low protein S activity. Patient was discharged from hospital on initial 6 months anticoagulation plan with follow up with immunology for the management of his high immunologic assays.

Patient is till following in the OPC with good general condition and no apparent sequelae till date.



Image 2: non opacification of splenic and portal veins in CT scan

Discussion:

acute portal vein thrombosis can present in a vague manner that warrants high index of suspicion.

In the literature, the use of Ultrasonography with Doppler imaging has been estimated to be 89 to 93 percent sensitive and 92 to 93 percent specific for diagnosing APVT, the sensitivity and specificity can improve by expertise of sonographer and the pretest suspicion of the APVT.

In our case patient benefited from the use of ultrasound even without previous suspicion of APVT, also peptic ulcer disease was a misleading diagnosis he already had.

Conclusion:

High index of suspicion is needed to diagnose APVT . Symptoms like pain after meals can lead to diagnosis of mesenteric ischemia and should not be mistaken as pepic ulcer disease related pain