

# AGA Clinical Practice Update on Management of Portal Vein Thrombosis in Patients With Cirrhosis: Expert Review

By: Garrett Cole, MD

## Background

- Portal Vein thrombosis is common in cirrhosis and is associated with increased mortality and worsening portal hypertension.
- Treatment is a clinical challenge due to:
  - Limited evidence with increased risks of complications
  - Bleeding risks with anticoagulation

## Evaluation

- Patients with cirrhosis with PVTs identified on Doppler ultrasound (89%–93% sensitivity and 92%–99% specificity for PVT) should undergo cross-sectional imaging
  - CT or MRI
- Patients with cirrhosis and PVT do not require a hypercoagulable workup in the absence of additional thromboembolii.

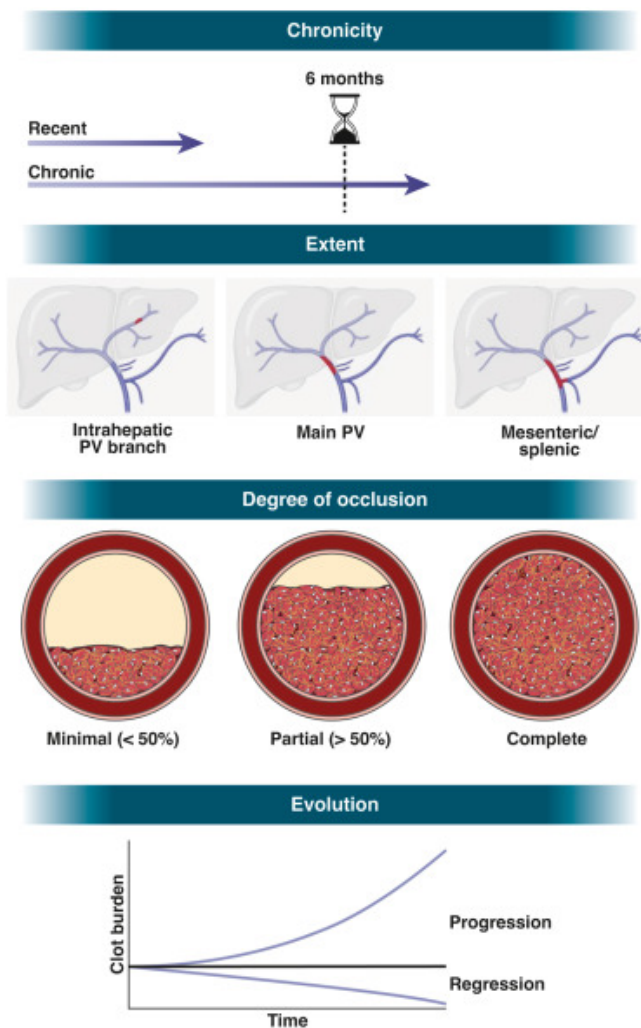


Figure 1

## Epidemiology, Pathophysiology, and Natural History

**Asymptomatic patients with compensated cirrhosis do not require routine screening for PVT.** Risk factors for PVT in cirrhosis include portal hypertension, slow portal flow, metabolic syndrome, and hepatocellular carcinoma.

- The AASLD proposes that PVT be characterized by chronicity, extent, degree of lumen obstruction, and responsiveness to therapy (Figure 1).
- Recent PVT is defined as occurring within the last 6 months, PVTs that are not recanalized within 6 months are unlikely to recanalize with anticoagulation.
- Collateralization alone cannot be relied on to identify the chronicity of PVT because cavernous changes have been noted as early as 1–3 weeks after acute PVT.*

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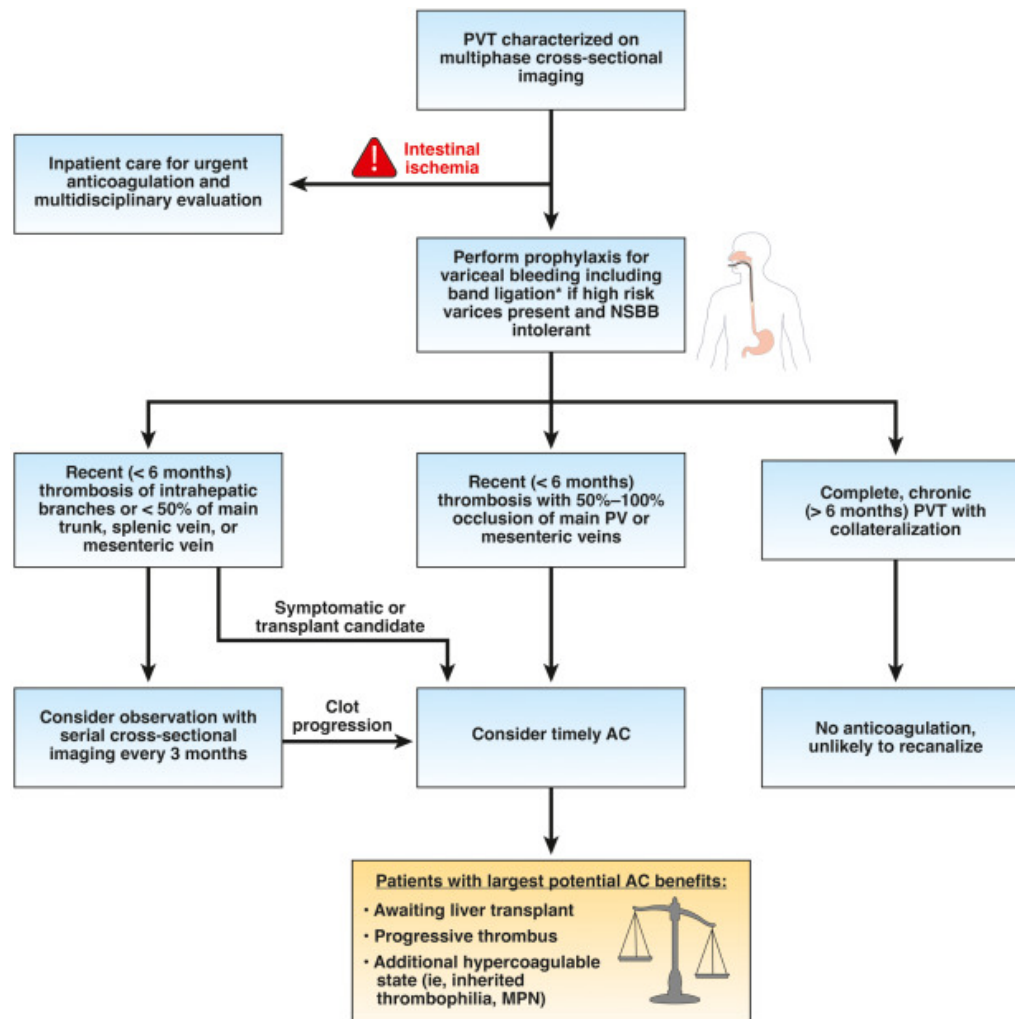
## Screen for esophageal varices?

- Patients with cirrhosis and PVT warrant endoscopic variceal screening if they are not already on NSBB.

- Patients who have *increased* benefit of recanalization include those with involvement of more than 1 vascular bed, thrombus progression, potential liver transplantation candidates, and those with inherited thrombophilia.

## What Is the Role of Vascular Intervention for Portal Vein Thrombosis in Cirrhosis?

- Portal vein revascularization with PVR-TIPS may be considered for selected patients with cirrhosis and PVT who have additional indications for TIPS.
- PVR-TIPS may also be considered for facilitation to transplantation.



Algorithm for Management of PVT in Cirrhosis

## How long to continue anticoagulation?

- Patients with cirrhosis on anticoagulation for PVT should have cross-sectional imaging every 3 months to assess response to treatment.
- If clot regresses, anticoagulation should be continued until transplantation or at least clot resolution in non transplantation patients.

## Which Anticoagulant?

- VKAs, LMWH, and DOACs are all reasonable anticoagulant options for patients with cirrhosis and PVT.
- Decision making should be individualized and informed by patient preference and CTP class.
- CTP A and B: VKAs, LWMH, and DOACs may be considered
- CTP C: VKAs or LMWH