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Management of Esophageal Varices

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Disclosures

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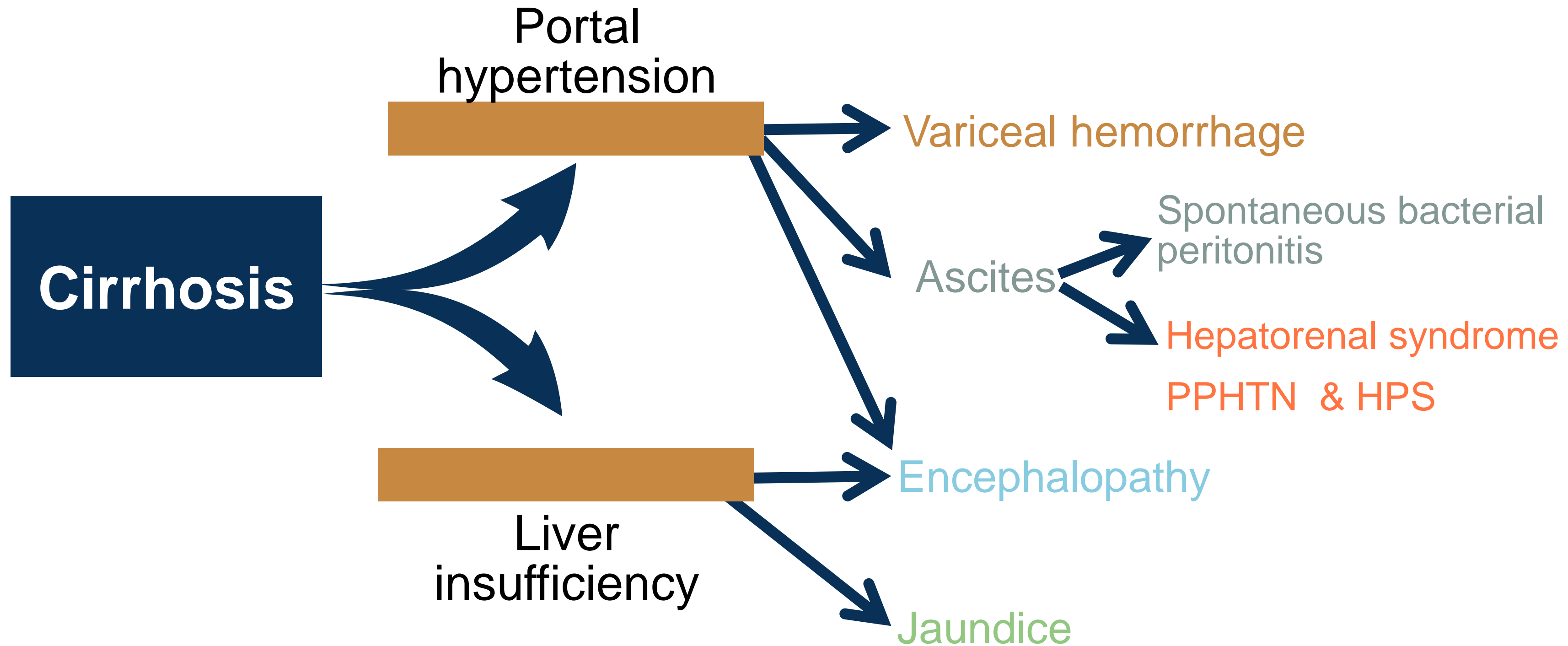
Disclosures

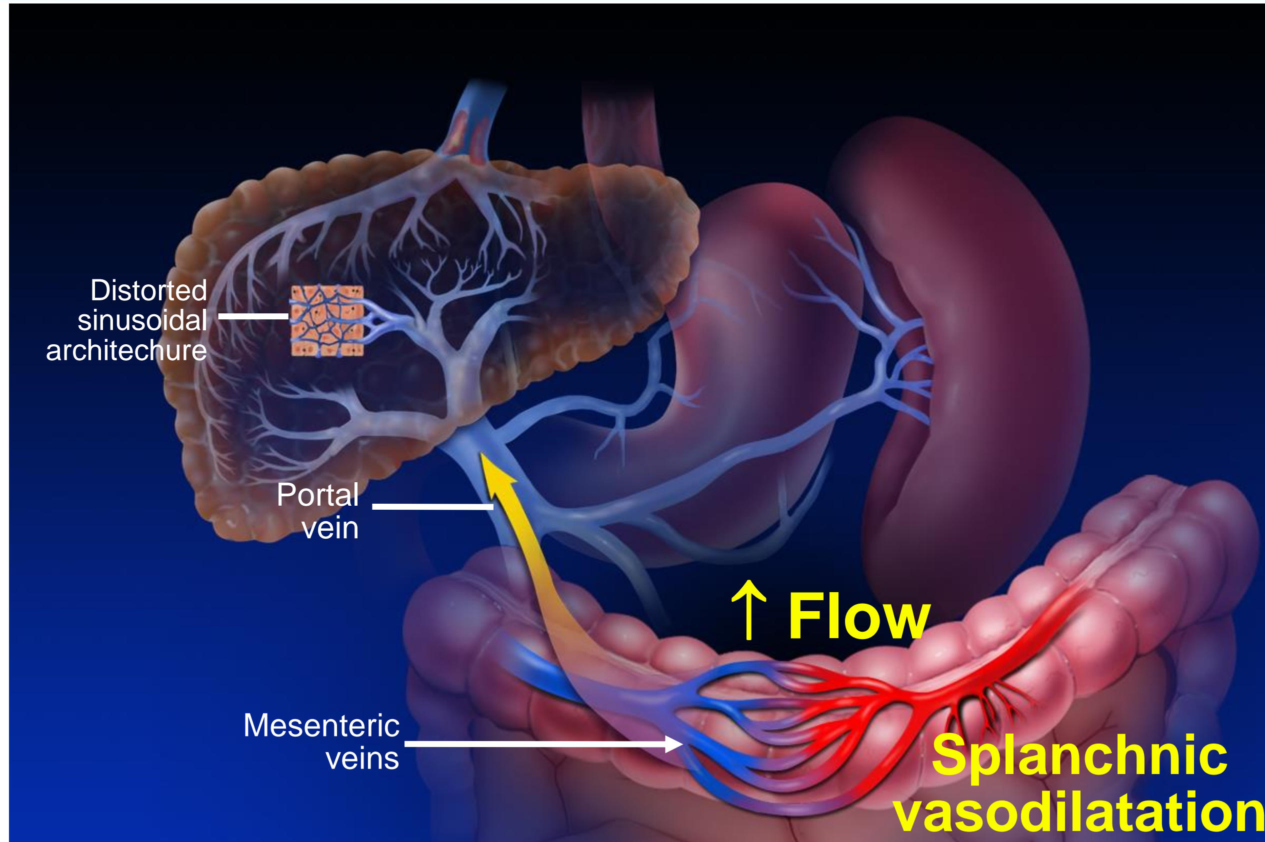
Jordan Mayberry, PA-C

Consultant: Intercept, Clinical Area: PBC, NASH

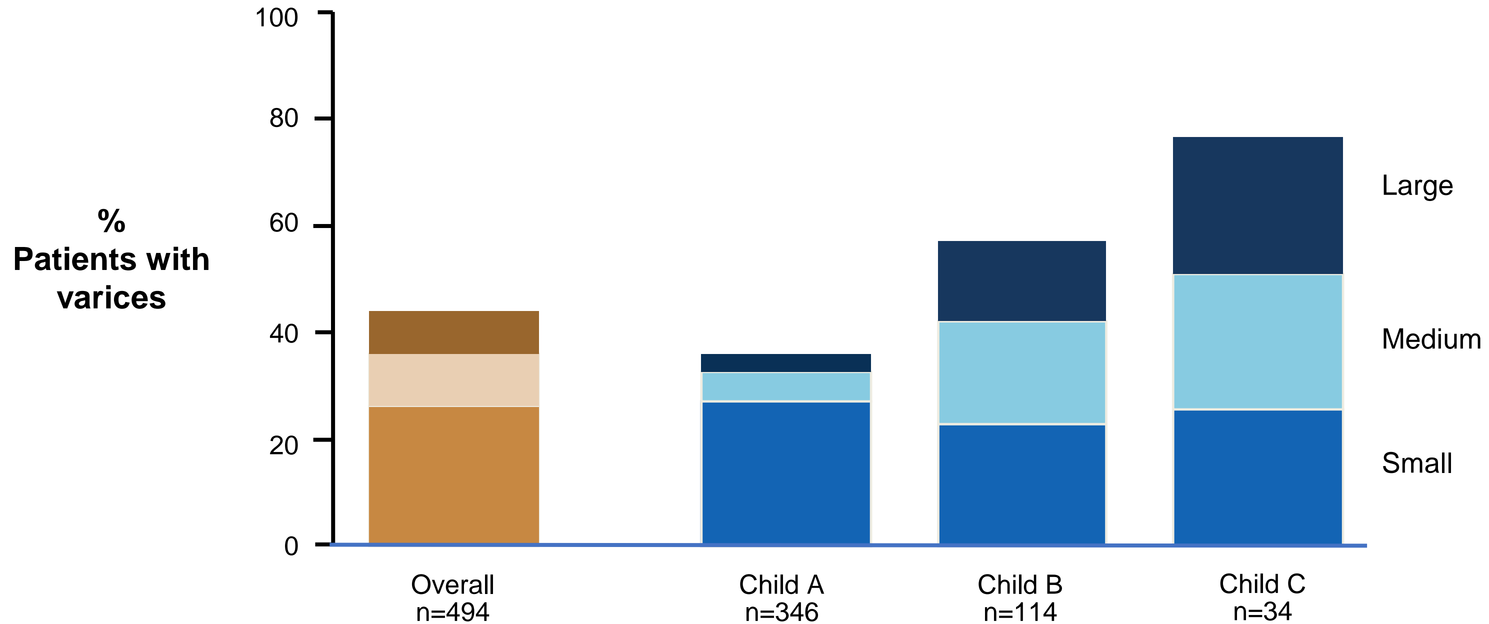
Complications of Cirrhosis Result From Portal Hypertension or Liver Insufficiency



An Increase in Portal Venous Inflow Sustains Portal Hypertension

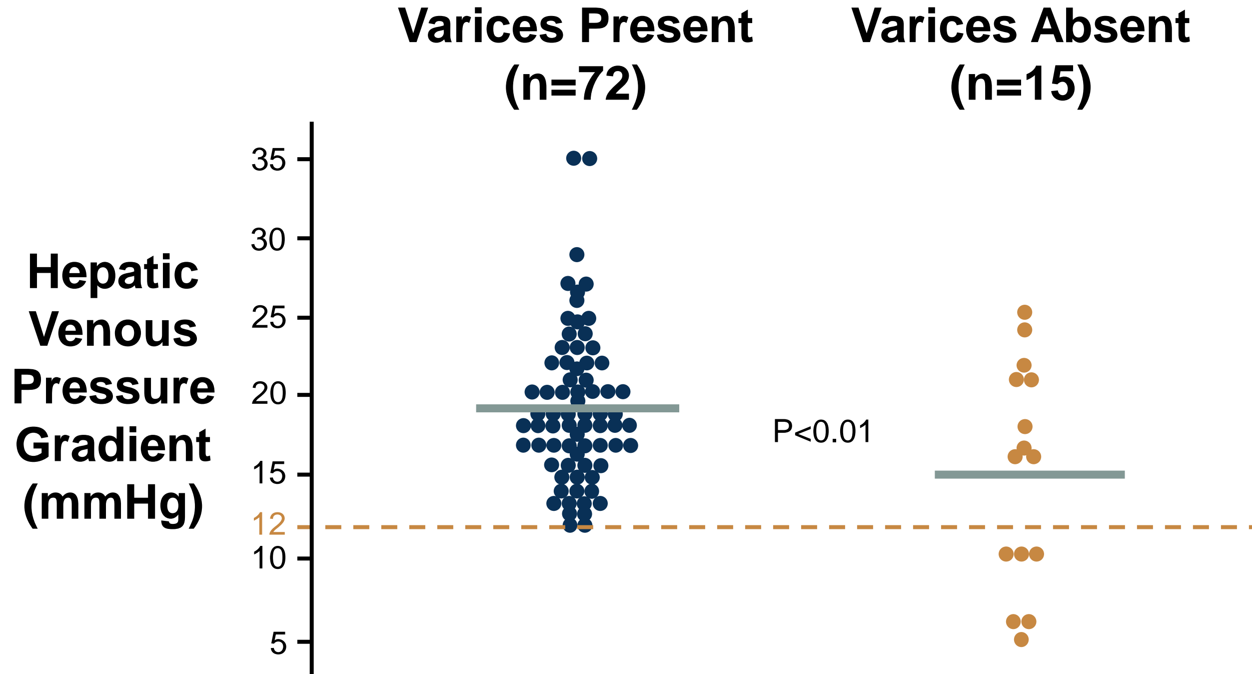


Prevalence and Size of Esophageal Varices in Patients With Newly-Diagnosed Cirrhosis



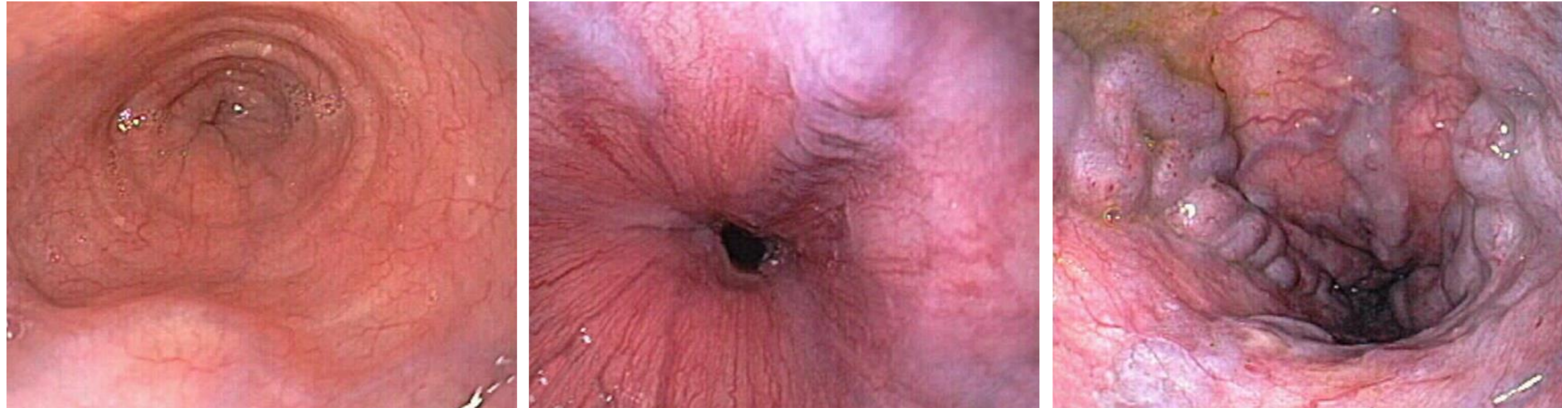
Pagliaro et al. In: *Portal Hypertension: Pathophysiology and Management.* 1994: 72.

A Threshold Portal Pressure of ~12 mmHg Is Necessary for Varices to Form



Garcia-Tsao et. al. *Hepatology*. 1985; 5:419.

Varices Increase in Diameter Progressively

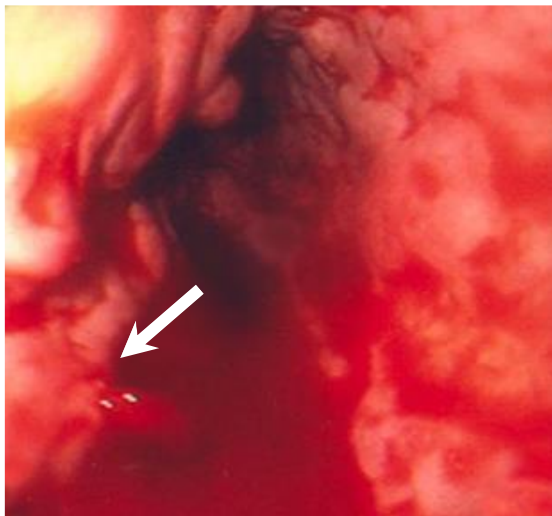


No varices **Small varices** **Large varices**

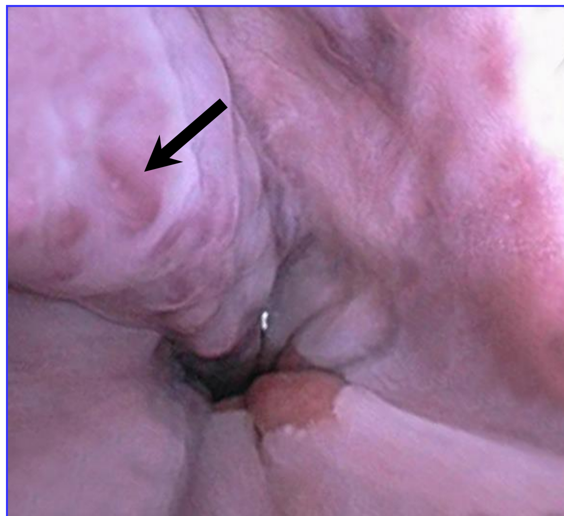
7-8%/year **7-8%/year**

Merli et al. *J Hepatol*. 2003;38:266

PROGNOSTIC INDICATORS OF FIRST VARICEAL HEMORRHAGE



Variceal hemorrhage



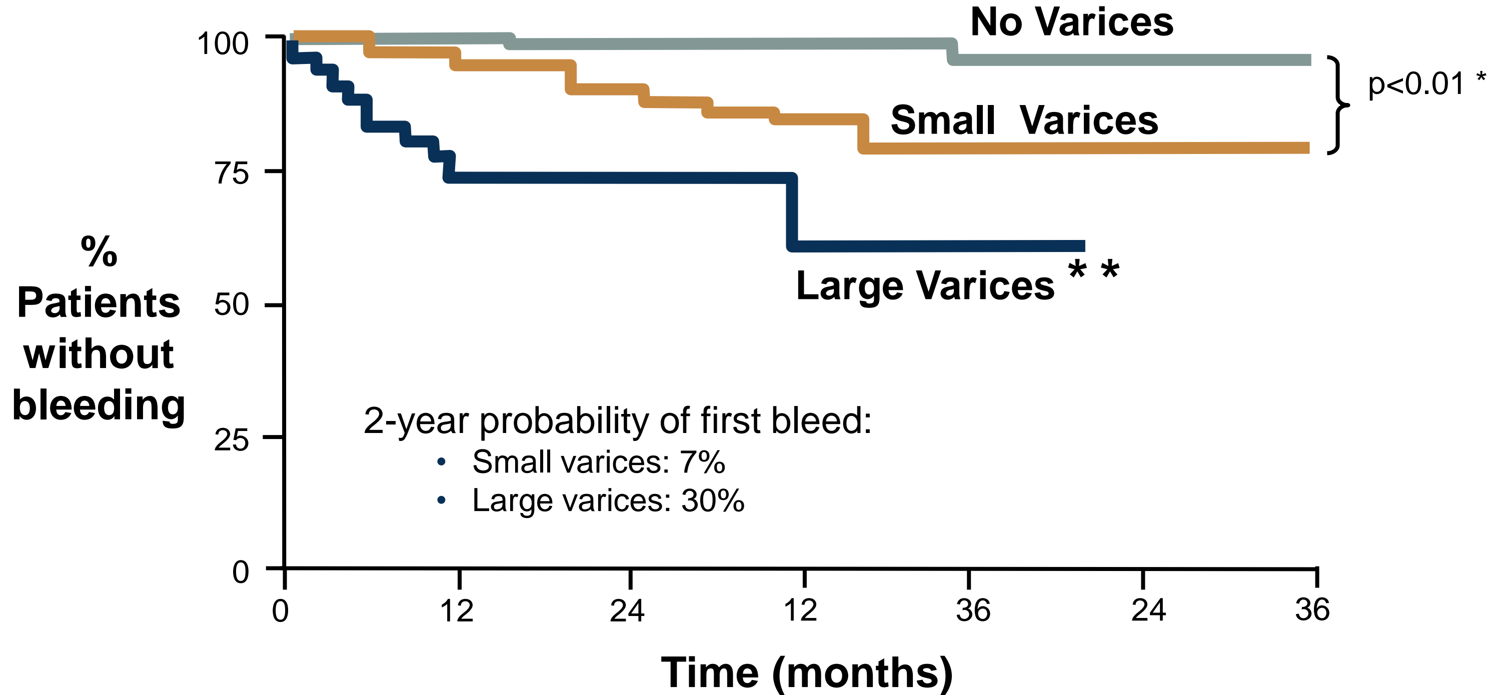
Varix with red signs

Predictors of hemorrhage:

- Variceal size
- Red signs
- Child B/C

NIEC. *N Engl J Med*. 1988; 319:983.

Large Varices Are More Likely to Rupture



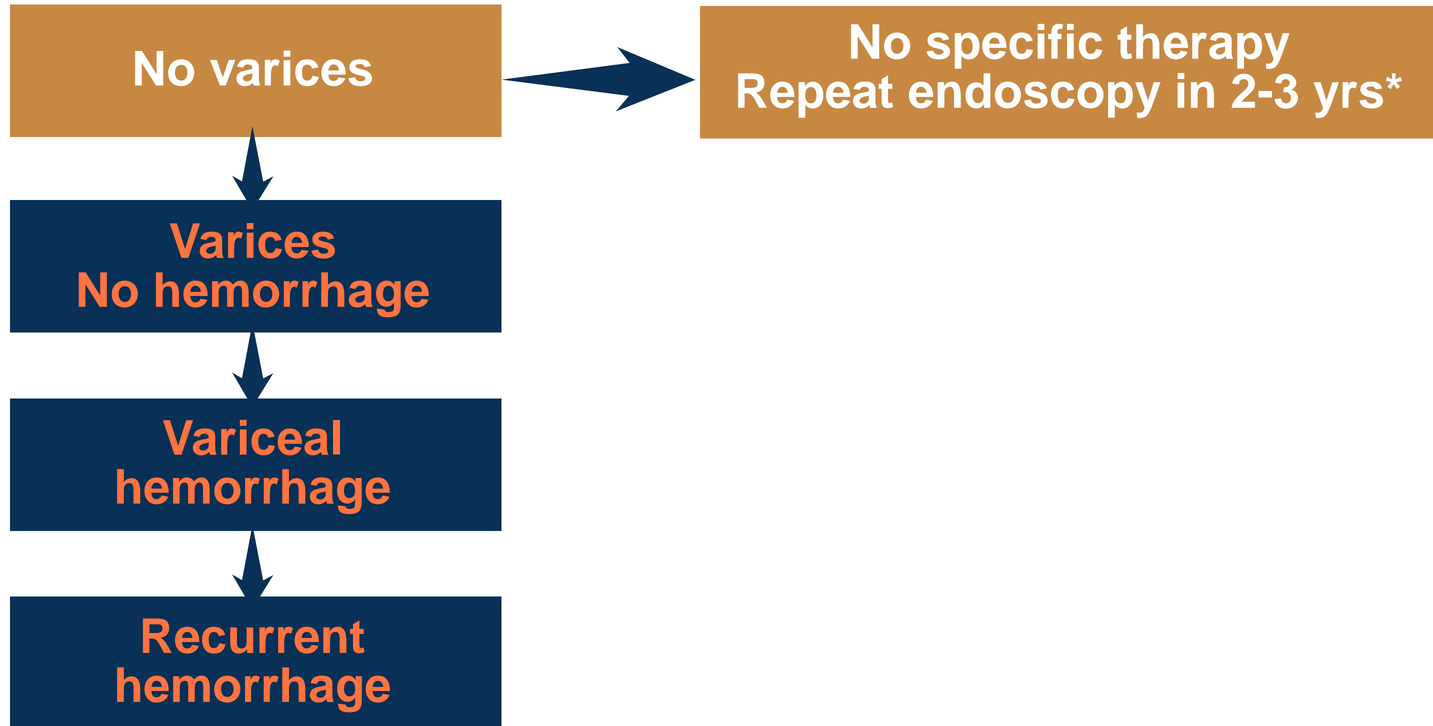
Merli et al. *Hepatol.* 2003; 38:266; Conn et al. *Hepatology*. 1991; 13:902.

Pre-Primary Prophylaxis

- Multicenter, randomized, placebo-controlled trial of timolol (non-selective beta-blocker) vs. placebo in patients
- Beta-blockers did not prevent the development of varices and were associated with a higher rate of serious adverse events
- Hepatic venous pressure gradient (>10 mmHg) was the strongest predictor of the development

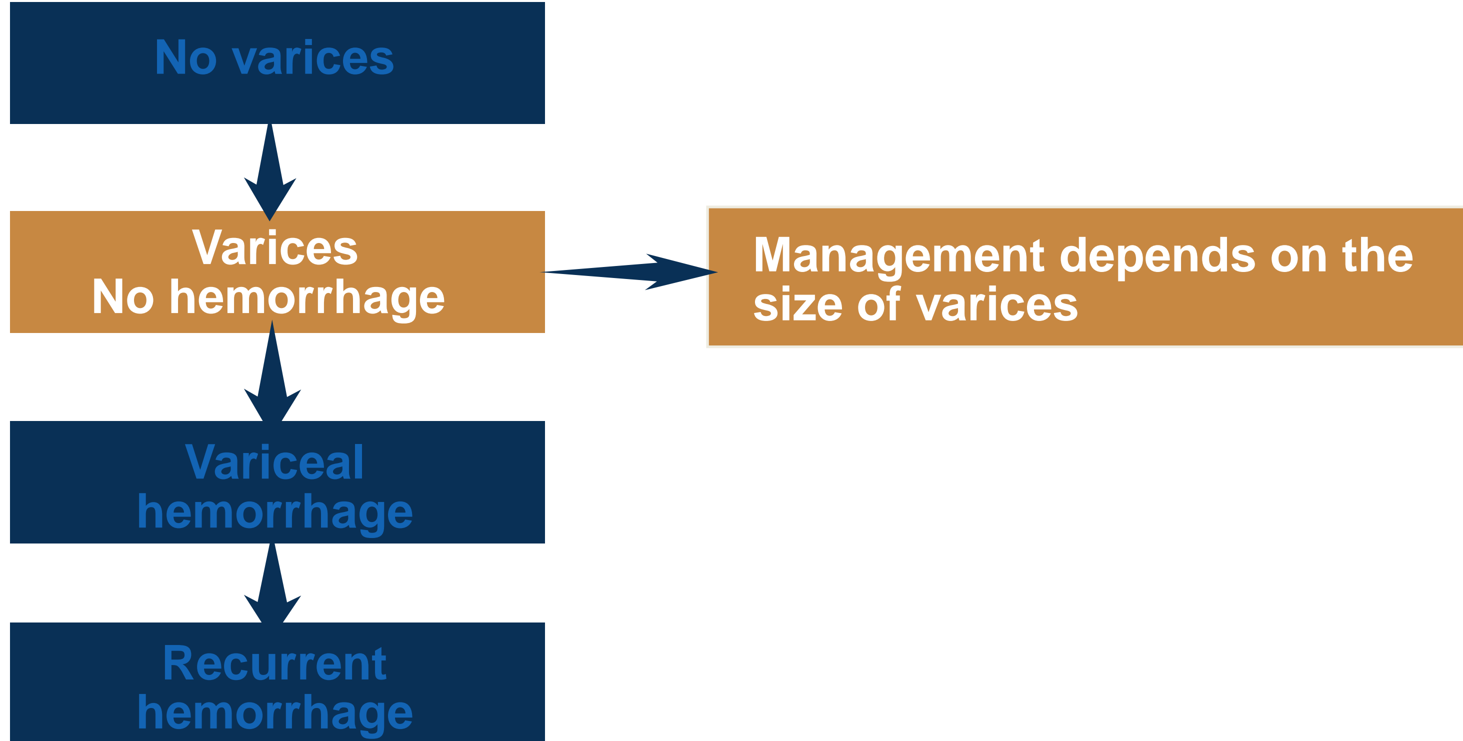
Groszmann, et al. *Hepatology*. 2003;38 (suppl 1):206A.

Treatment of Varices / Variceal Hemorrhage



* Sooner with cirrhosis decompensation

Treatment of Varices / Variceal Hemorrhage

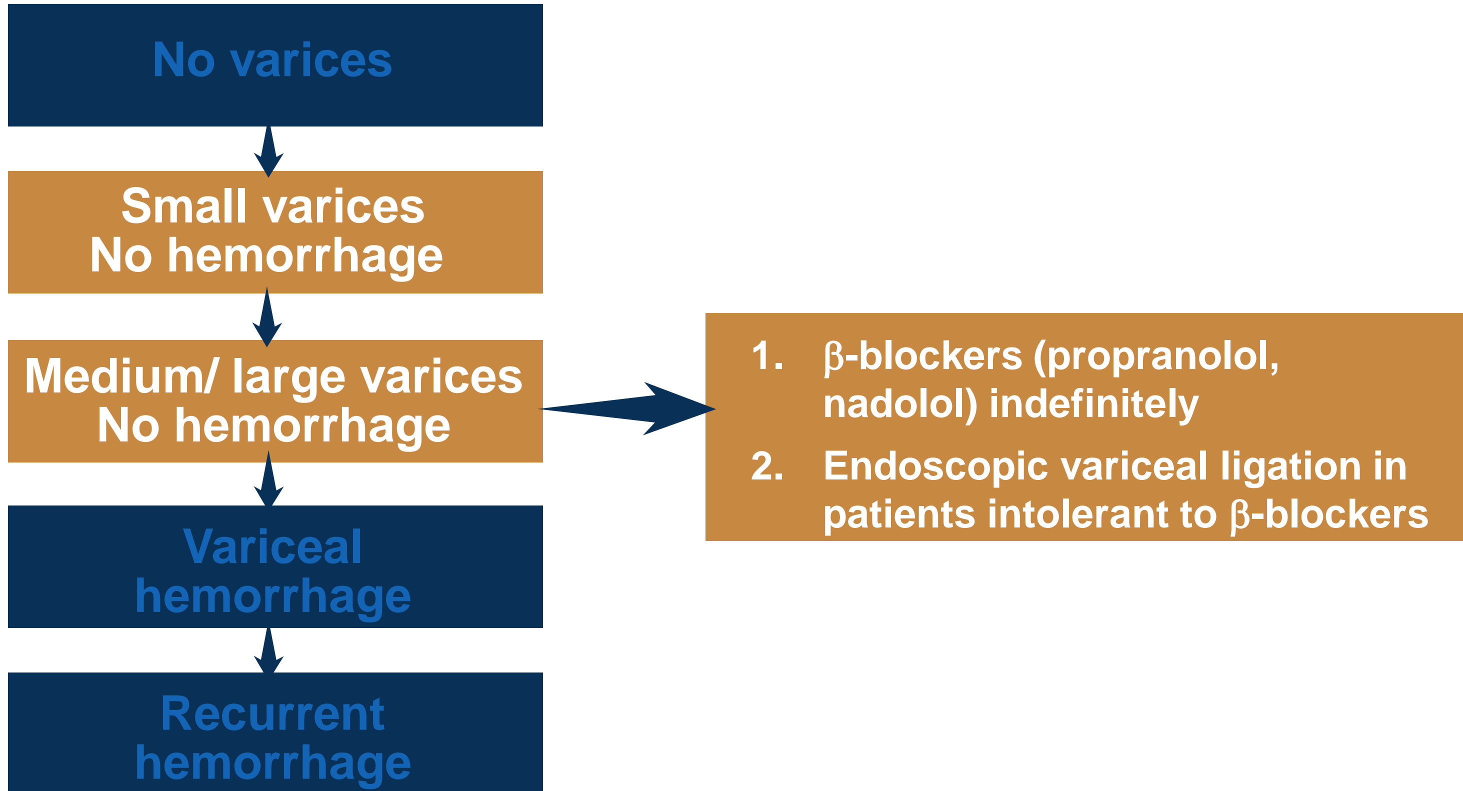


AASLD Guidelines 2017

- Prevention of First Variceal Hemorrhage in Patients with small varices
  - NSSB is the recommended therapy for patients with high risk small EV

Hepatology, January 2017

Treatment of Varices / Variceal Hemorrhage

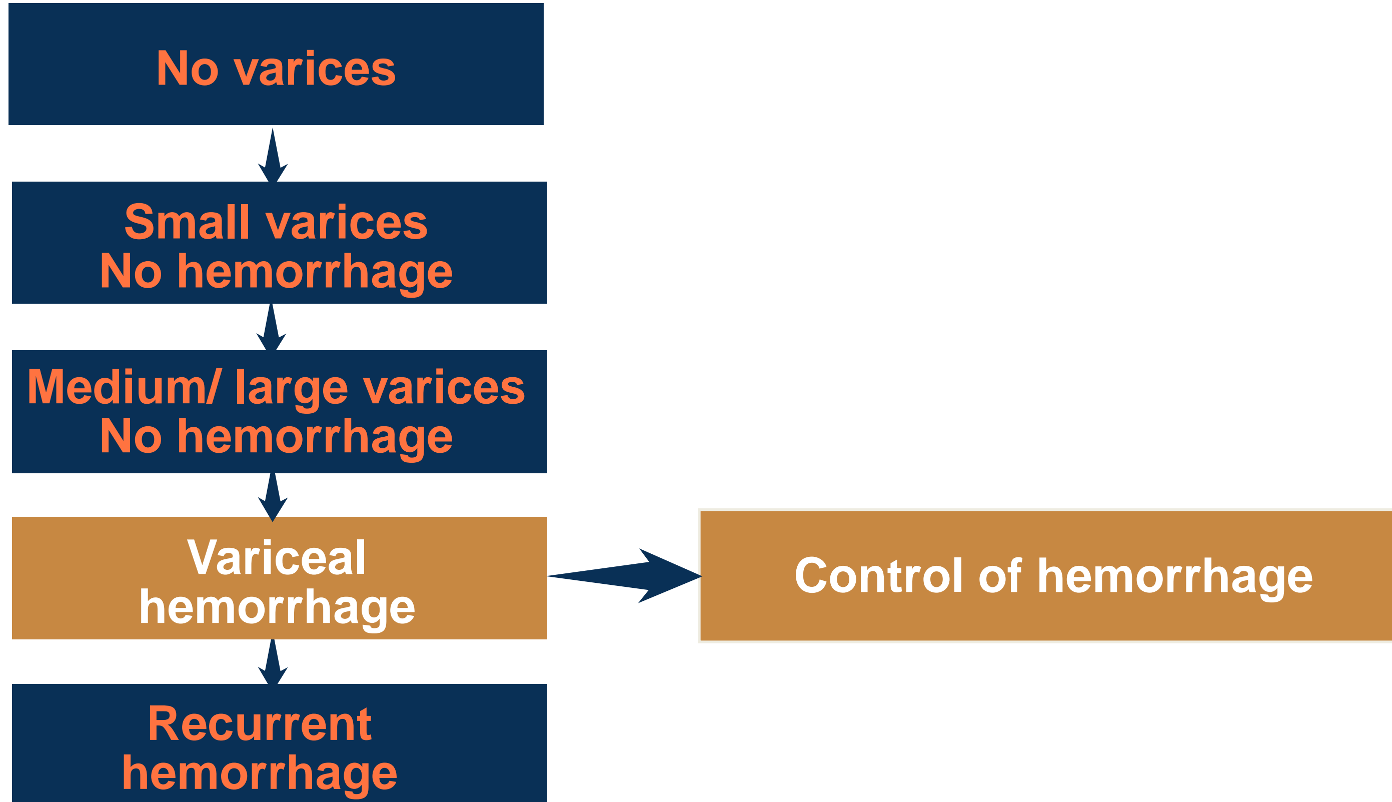


AASLD Guidelines 2017

- Prevention of First Variceal Hemorrhage in Patients with Medium or Large Varices
  - Traditional NSBBs or EVL
  - Choice of treatment should be based on patient preference and characteristics
  - Patients on NSBBs or carvedilol do not require serial EGD
  - Combination therapy NSBB plus EVL is NOT recommended in this setting
  - TIPS is not recommend in this setting

Hepatology, January 2017

Treatment of Varices / Variceal Hemorrhage



Treatment of Varices / Variceal Hemorrhage

- General Management:
  - IV access and fluid resuscitation
  - Do not overtransfuse (hemoglobin ~ 8 g/dL)
  - Antibiotic prophylaxis
- Specific therapy:
  - Pharmacological therapy: Octreotide
  - Endoscopic therapy: ligation,
  - Shunt therapy: TIPS, surgical shunt

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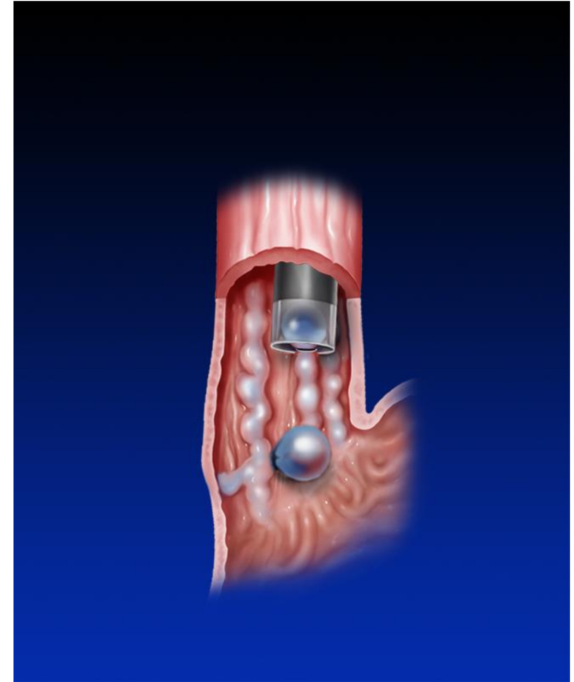
Endoscopic Variceal Band Ligation

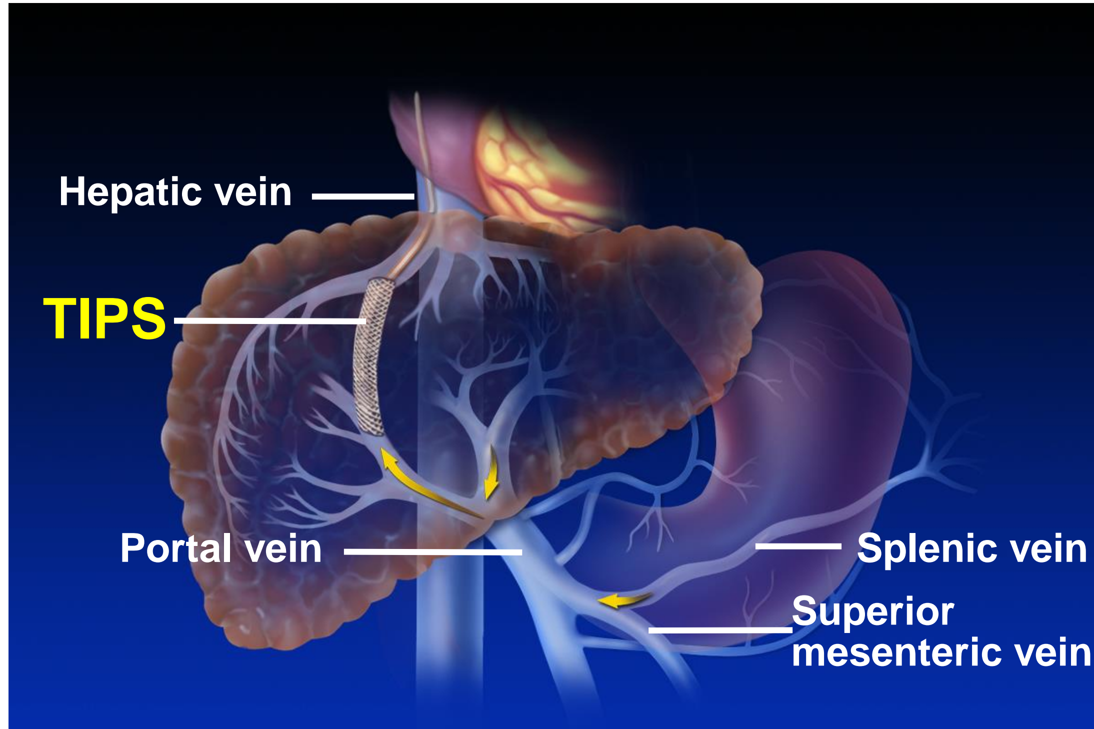
- Bleeding controlled in 90%
- Rebleeding rate 30%
- Compared with sclerotherapy:
  - Less rebleeding
  - Lower mortality
  - Fewer complications
  - Fewer treatment sessions



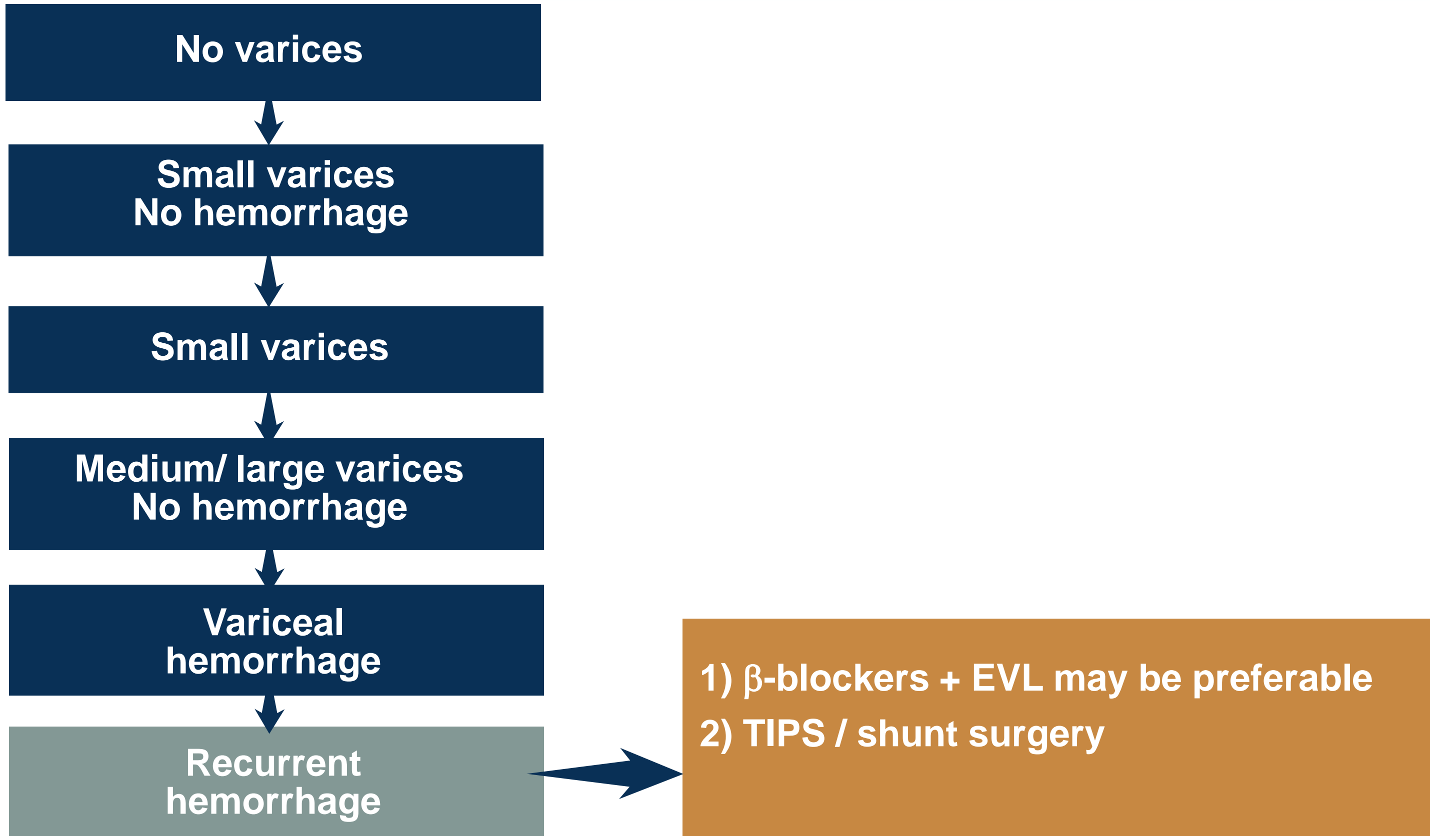
TIPS in the Treatment of Variceal Hemorrhage

- TIPS is rescue therapy for recurrent variceal hemorrhage
  - (At second rebleed for esophageal varices, at first rebleed for gastric varices)
- TIPS is indicated in patients who rebleed on combination endoscopic plus pharmacologic therapy
- In patients with Child A/B cirrhosis, the distal spleno-renal shunt is as effective as TIPS
  - (Dependent on local expertise)

Transjugular Intrahepatic Portosystemic Shunt



Treatment of Varices / Variceal Hemorrhage



1) β-blockers + EVL may be preferable
2) TIPS / shunt surgery

AASLD Guidelines 2017

- Treatment for Prevention of Recurrent Esophageal Variceal Hemorrhage
  - Combination of NSBB + EVL is first line therapy
    - Goal HR 55- 60 bmp
  - TIPS is rescue therapy for these patients

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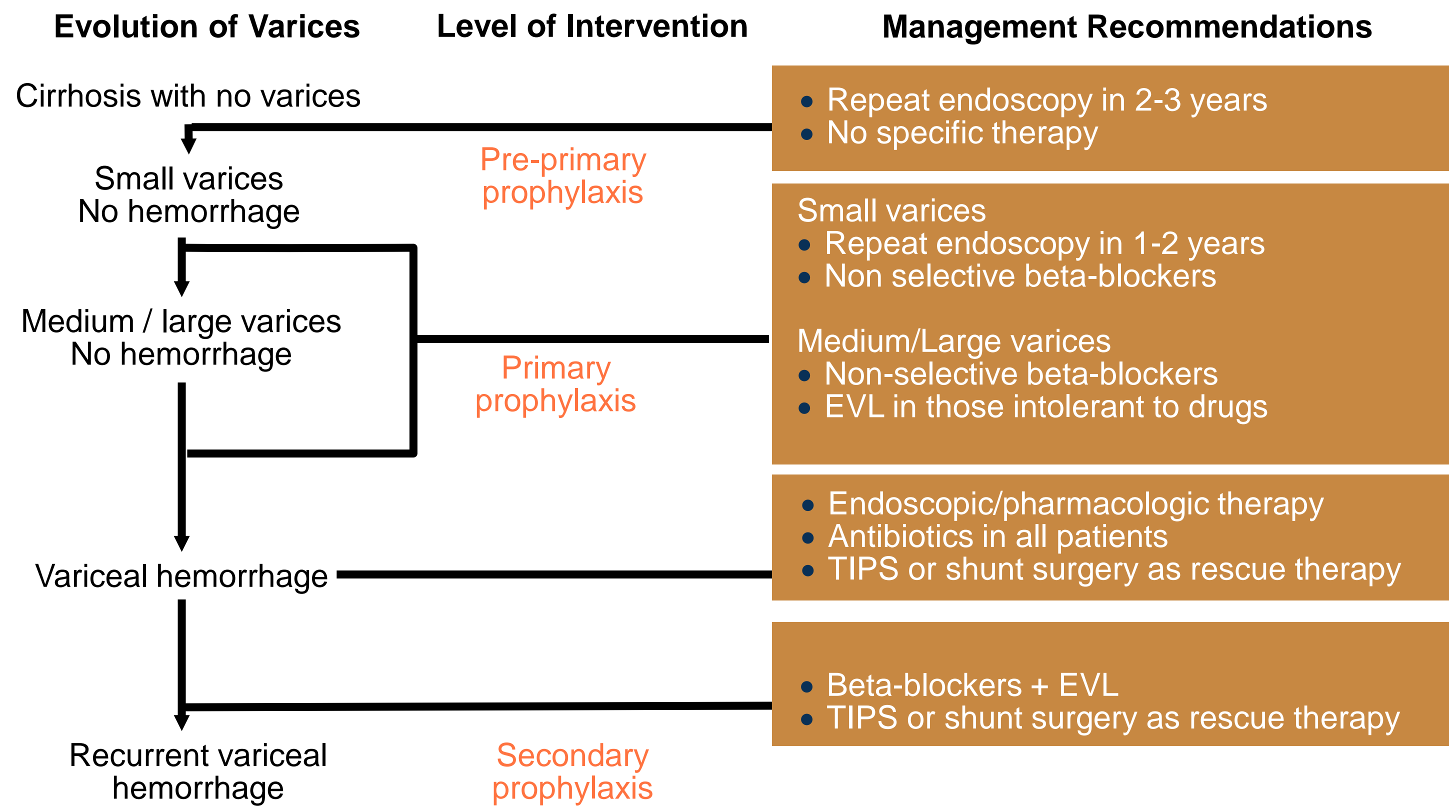
SUMMARY OF MANAGEMENT OF VARICES AND VARICEAL HEMORRHAGE



Case AO

Case Presentation

- A 64 year-old male executive was brought to the emergency room after a pre-syncopal episode in the bathroom. He had been a heavy drinker for over 30 years.
- Physical examination was significant for orthostatic hypotension, asterixis, icteric sclerae and black, tarry stool on rectal examination.

Case AO

Case Presentation

- Hgb 9 g/dL, albumin 3.2 g/dL, bilirubin 3.7 mg/dL, INR 1.2.
- Patient was resuscitated and started on prophylactic antibiotics.
- On endoscopy, three columns of large esophageal varices with red wale signs and gastric varices were seen. No active bleeding.

Case AO

Therapy?

What is the appropriate management of his varices?

- Pharmacological therapy alone?
- Endoscopic treatment alone?
- Endoscopic + pharmacological therapy?
- TIPS?
- Surgery?

Case AO

Acute Therapy

- The source of bleeding is likely variceal given the absence of other lesions that could explain upper GI hemorrhage
- Octreotide infusion was initiated after an initial bolus
- Variceal band ligation of esophageal varices was performed

Case AO

Long-Term Therapy

- After 5 days without recurrent hemorrhage, patient was started on propranolol 40 mg p.o. BID
- Once HR indicated appropriate beta-blockade (55-60 bpm) patient maintained on this dose indefinitely
- Outpatient endoscopy with possible banding was scheduled