



Acute Variceal Bleeding



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Treatment of Acute Variceal Hemorrhage

General Management:

- IV access and fluid resuscitation
- Do not overtransfuse (hemoglobin ~ 8 g/dL)
- Antibiotic prophylaxis

Specific therapy:

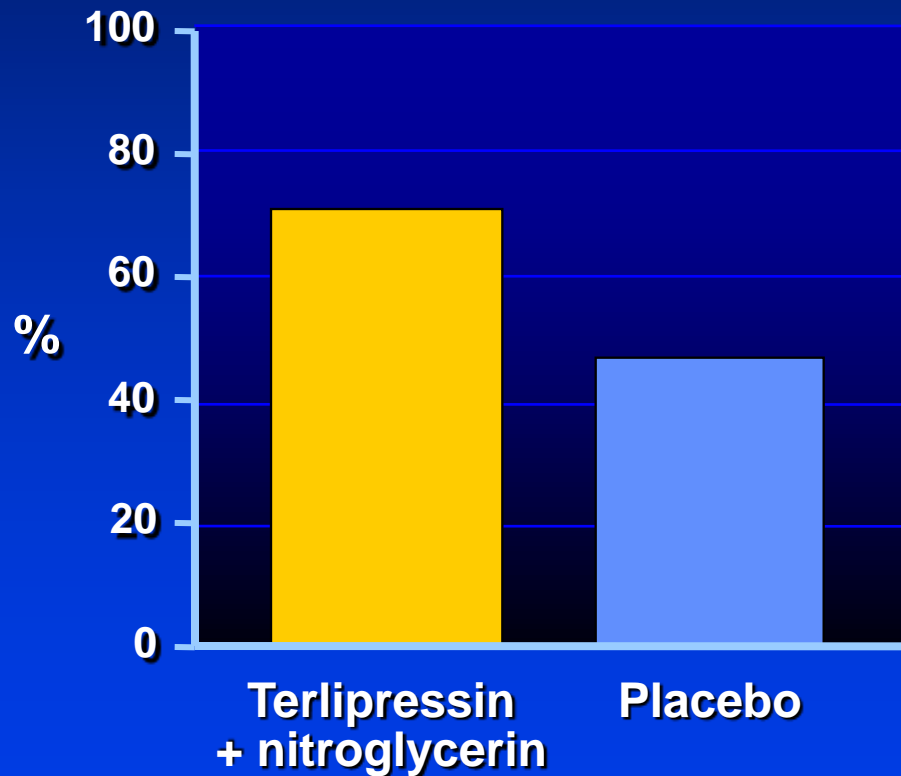
- Pharmacological therapy: terlipressin, somatostatin and analogues, vasopressin + nitroglycerin
- Endoscopic therapy: ligation, sclerotherapy
- Shunt therapy: TIPS, surgical shunt

Prophylactic Antibiotics Improve Outcomes in Cirrhotic Patients with GI Hemorrhage

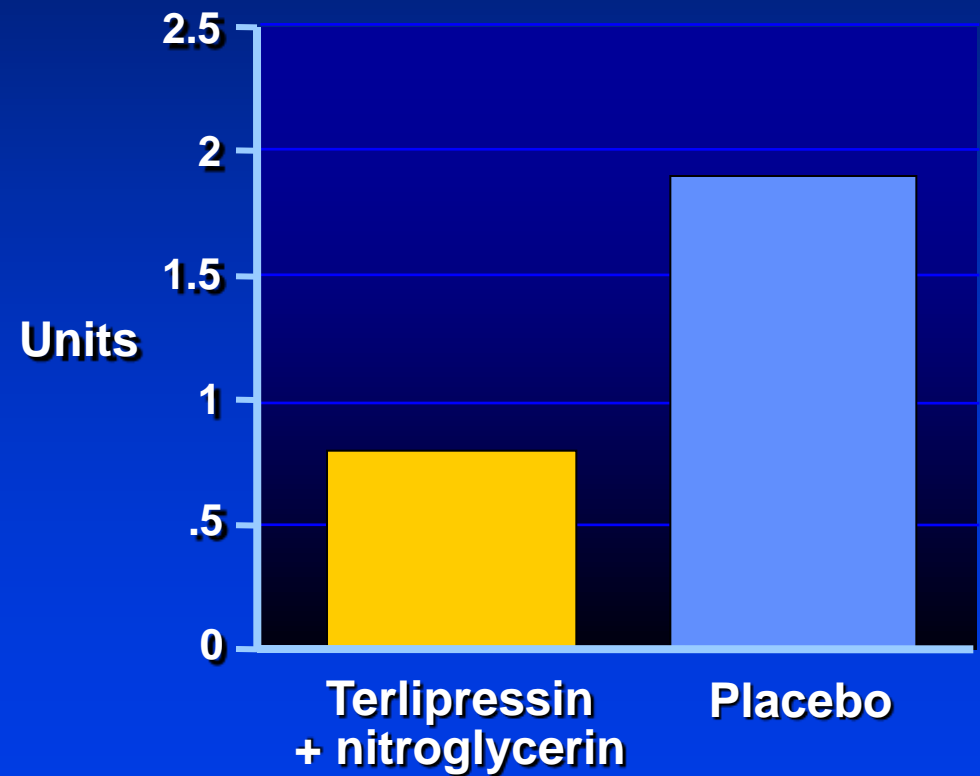
	Control (n=270)	Antibiotic (n=264)	Absolute rate difference (95% CI)
Infection	45%	14%	-32% (-42 to -23)
SBP / Bacteremia	27%	8%	-18% (-26 to -11)
Death	24%	15%	-9% (-15 to -3)

Early Administration of Terlipressin/Nitroglycerin Improves Control of Active Variceal Hemorrhage

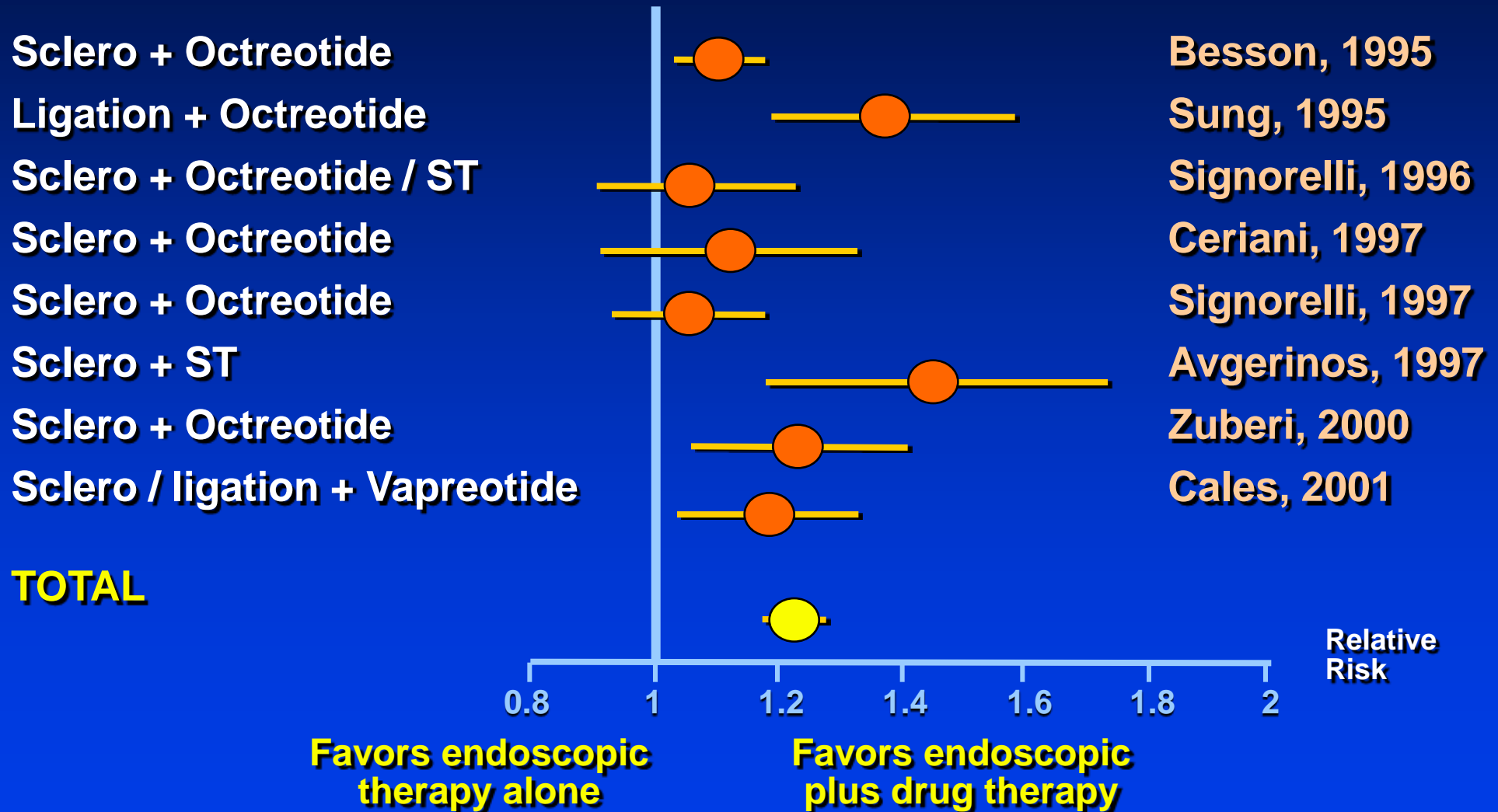
Control of hemorrhage



Blood transfused



Combination Drug / Endoscopic Therapy is More Effective Than Endoscopic Therapy Alone in Achieving Five-Day Hemostasis

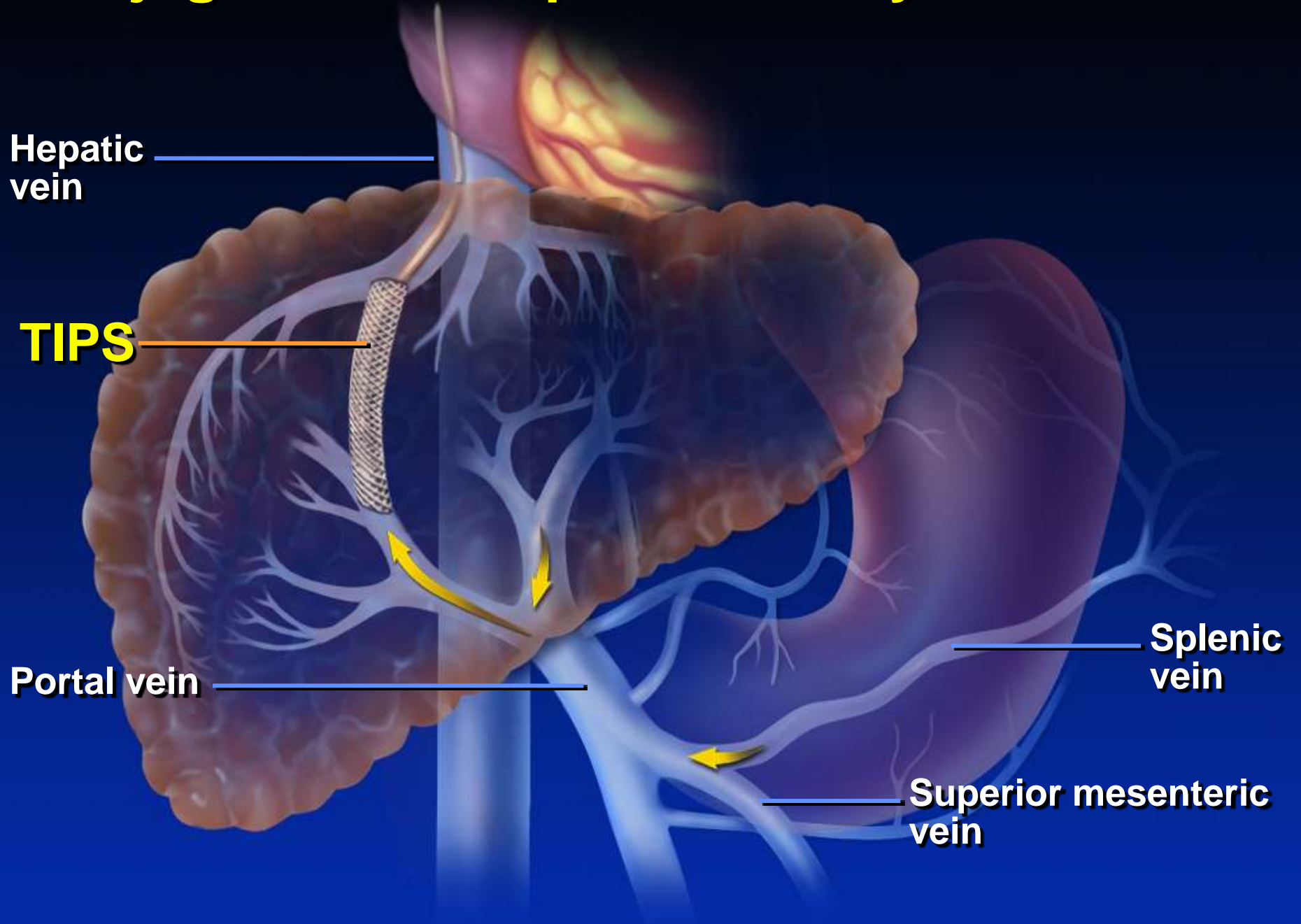


Endoscopic Variceal Band Ligation

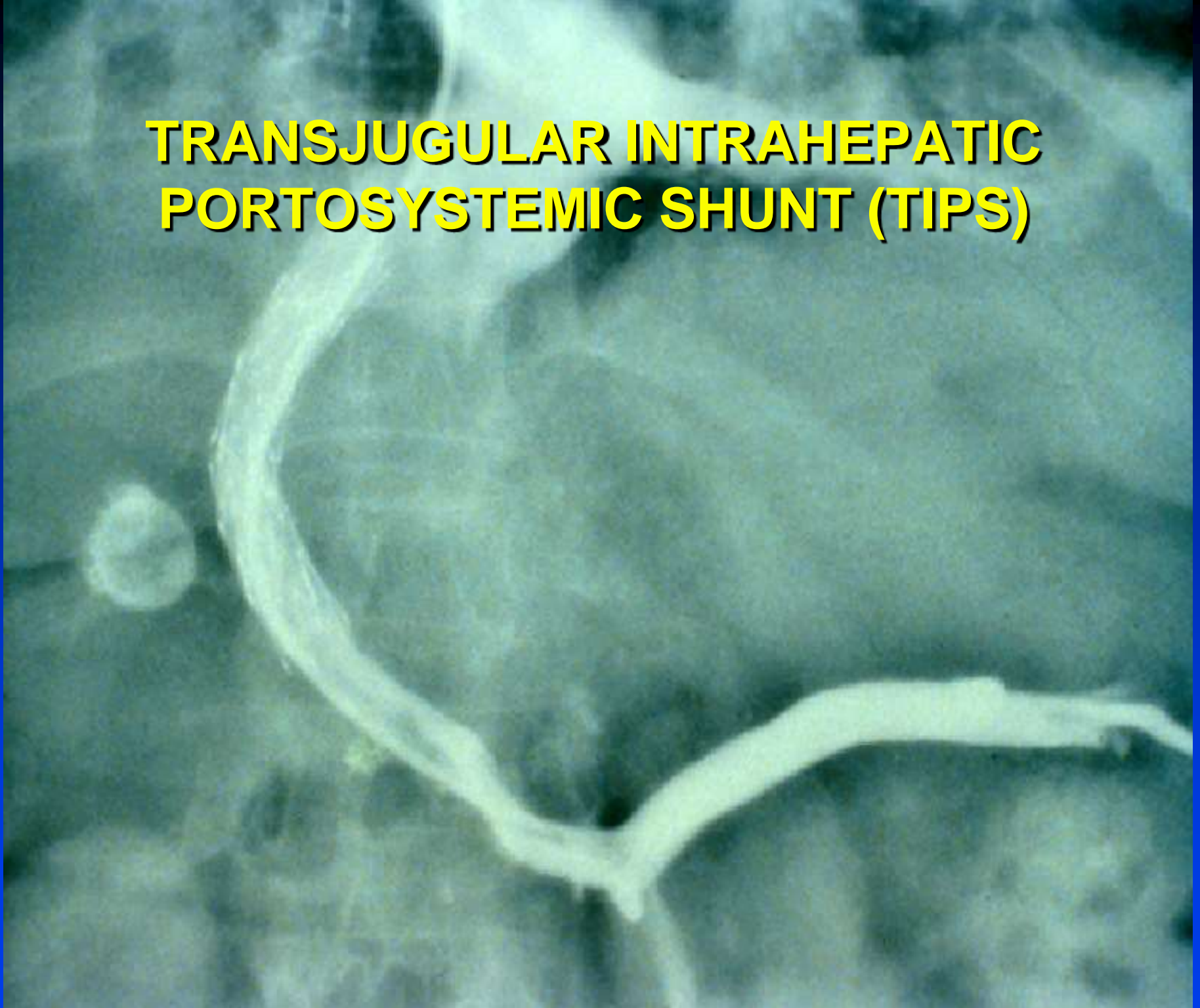
- Bleeding controlled in 90%
- Rebleeding rate 30%
- Compared with sclerotherapy:
 - Less rebleeding
 - Lower mortality
 - Fewer complications
 - Fewer treatment sessions



Transjugular Intrahepatic Portosystemic Shunt



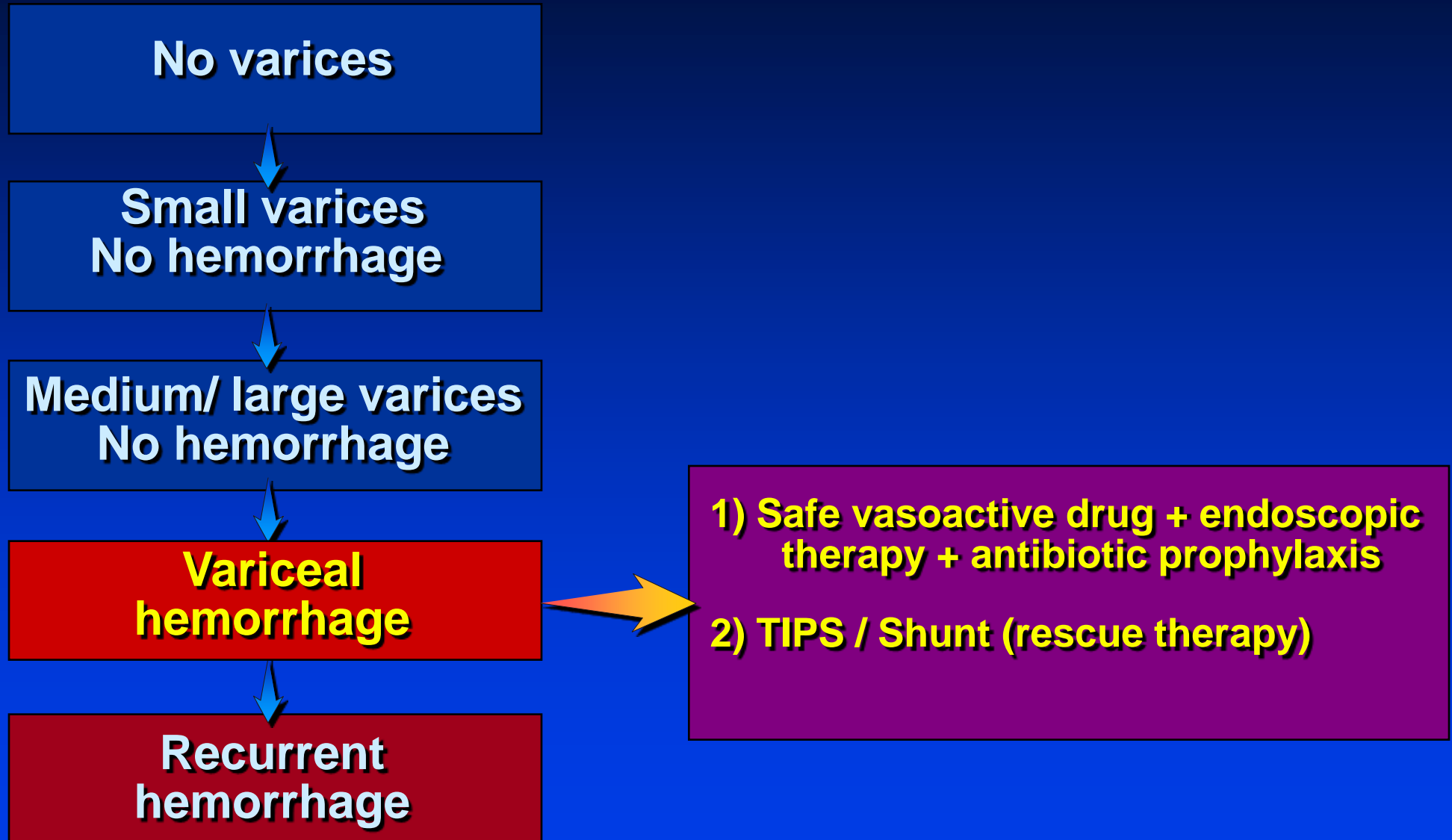
TRANSJUGULAR INTRAHEPATIC PORTOSYSTEMIC SHUNT (TIPS)



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)

Treatment of Varices / Variceal Hemorrhage



Management of Acute Variceal Hemorrhage

Variceal Hemorrhage Suspected

Management of Acute Variceal Hemorrhage

Variceal Hemorrhage Suspected



Initial Management

- Transfuse to hemoglobin ~ 8 g/dL
- **Early pharmacotherapy**
- Antibiotic prophylaxis

Management of Acute Variceal Hemorrhage

Variceal Hemorrhage Suspected

Initial Management

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Endoscopic Intervention

Endoscopic variceal band ligation (EVL) is preferred to sclerotherapy

Management of Acute Variceal Hemorrhage

Variceal Hemorrhage Suspected

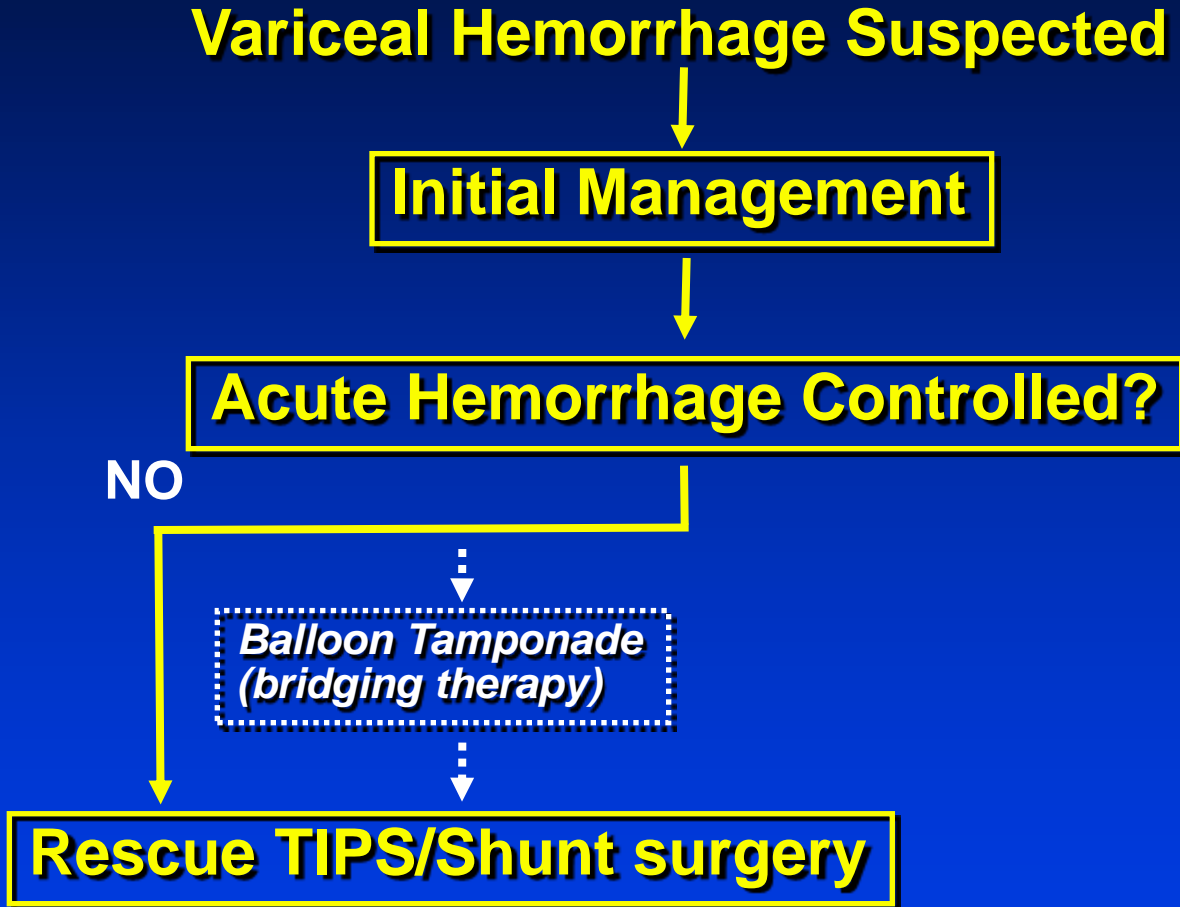
Initial Management

Acute Hemorrhage Controlled?

NO

*Balloon Tamponade
(bridging therapy)*

Rescue TIPS/Shunt surgery



Management of Acute Variceal Hemorrhage

Variceal Hemorrhage Suspected

Initial Management

Acute Hemorrhage Controlled?

NO

Balloon Tamponade

Rescue TIPS/Shunt surgery

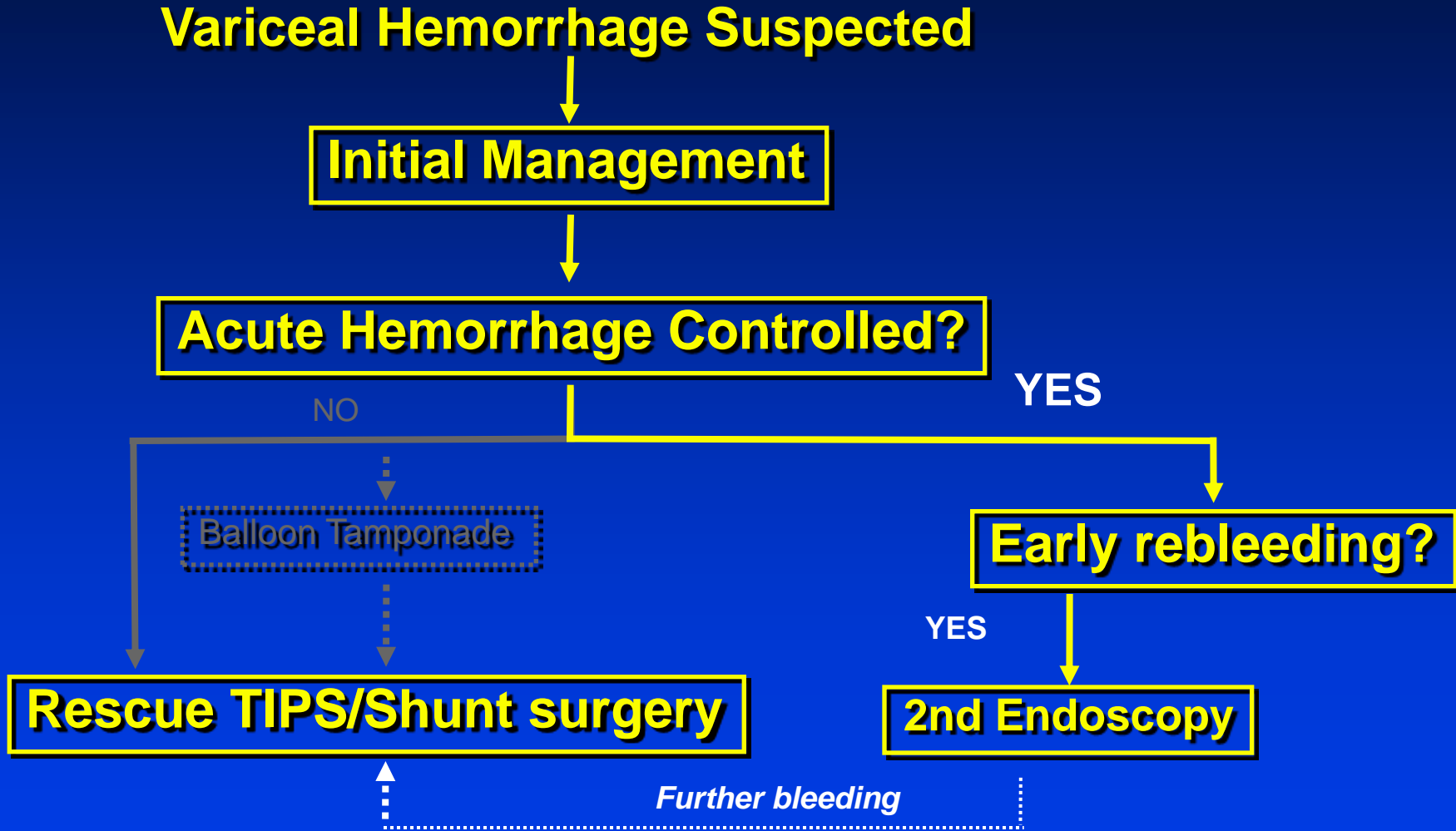
YES

Early rebleeding?

YES

2nd Endoscopy

Further bleeding



Management of Acute Variceal Hemorrhage

Variceal Hemorrhage Suspected

Initial Management

Acute Hemorrhage Controlled?

NO

Balloon Tamponade

Rescue TIPS/Shunt surgery

YES

Early rebleeding?

YES

2nd Endoscopy

NO

Prophylaxis against recurrent hemorrhage

Further bleeding

Management of Acute Variceal Hemorrhage

Variceal Hemorrhage Suspected

Initial Management

Acute Hemorrhage Controlled?

NO

YES

Balloon Tamponade

Early rebleeding?

YES

NO

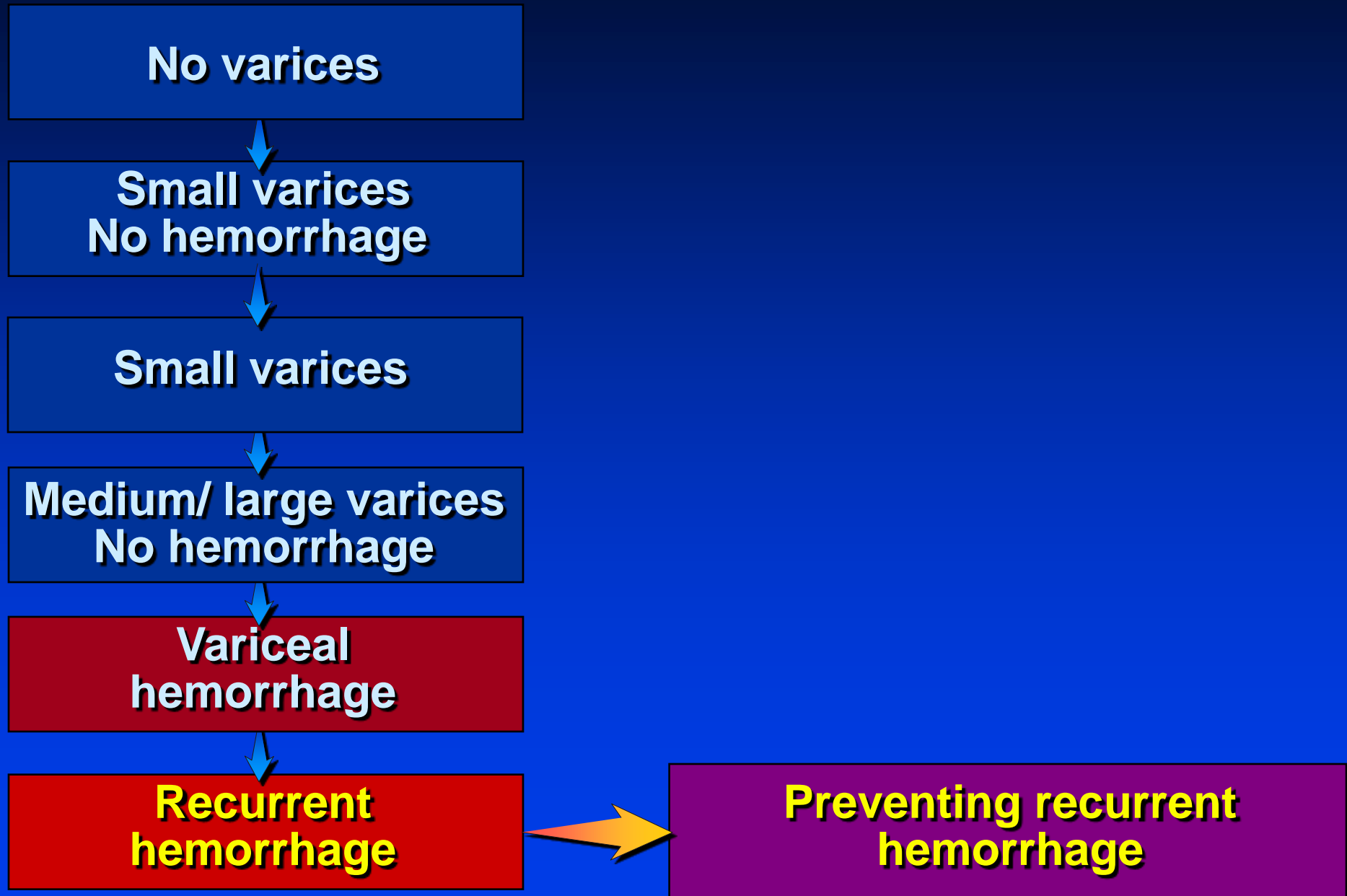
Rescue TIPS/Shunt surgery

2nd Endoscopy

Prophylaxis against recurrent hemorrhage

Further bleeding

Treatment of Varices / Variceal Hemorrhage



THANKS