

# *Management Of Variceal Hemorrhage*

By

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# ***GIT BLEEDING***

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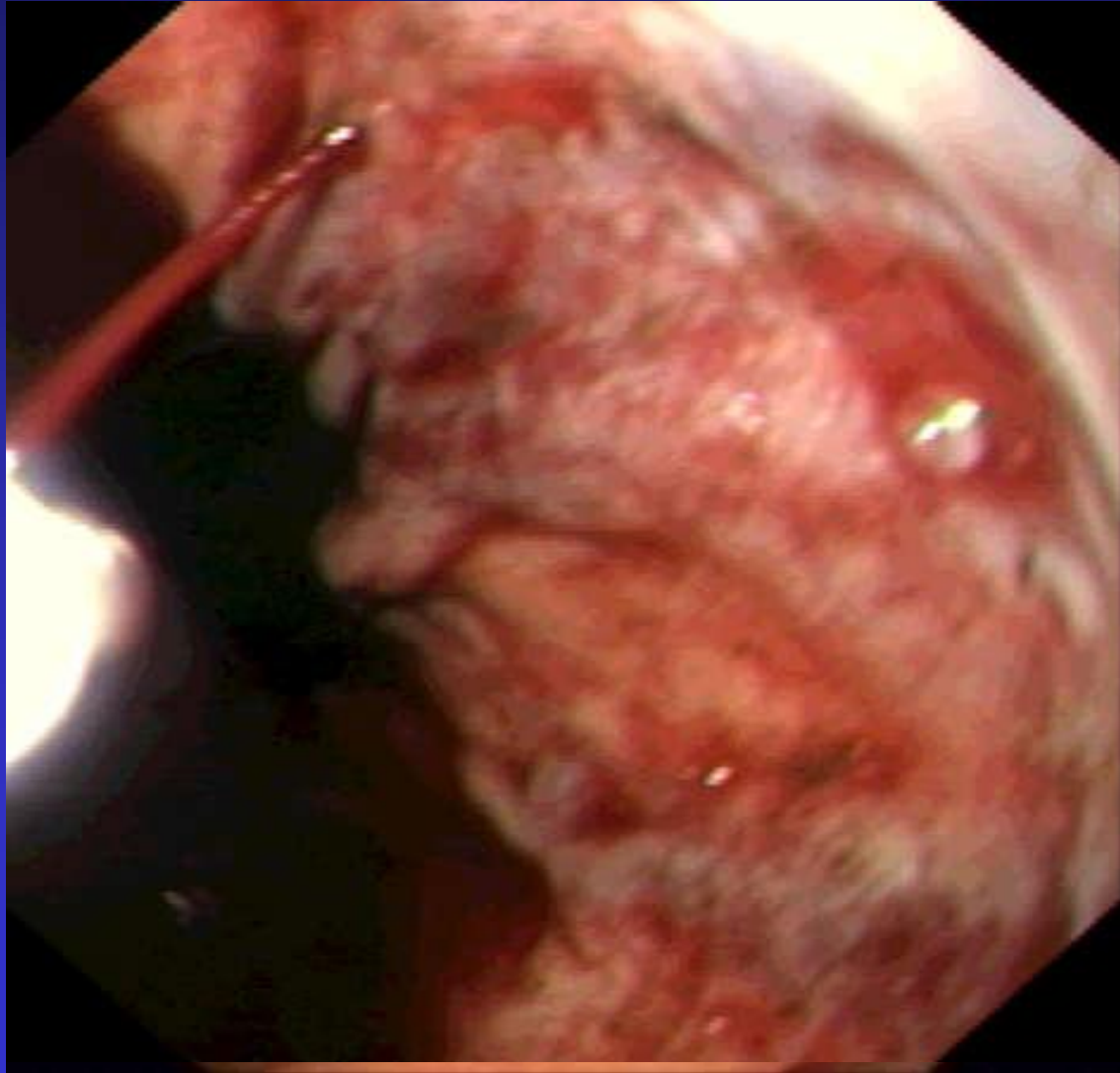
- ***Upper GIT:***      Haematemesis or Melaena.

*( Ligament of Traitez )*

- ***Lower GIT:***      *Haematochezia.*

# *Spurting bleeding*

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# ***SPIRTER***

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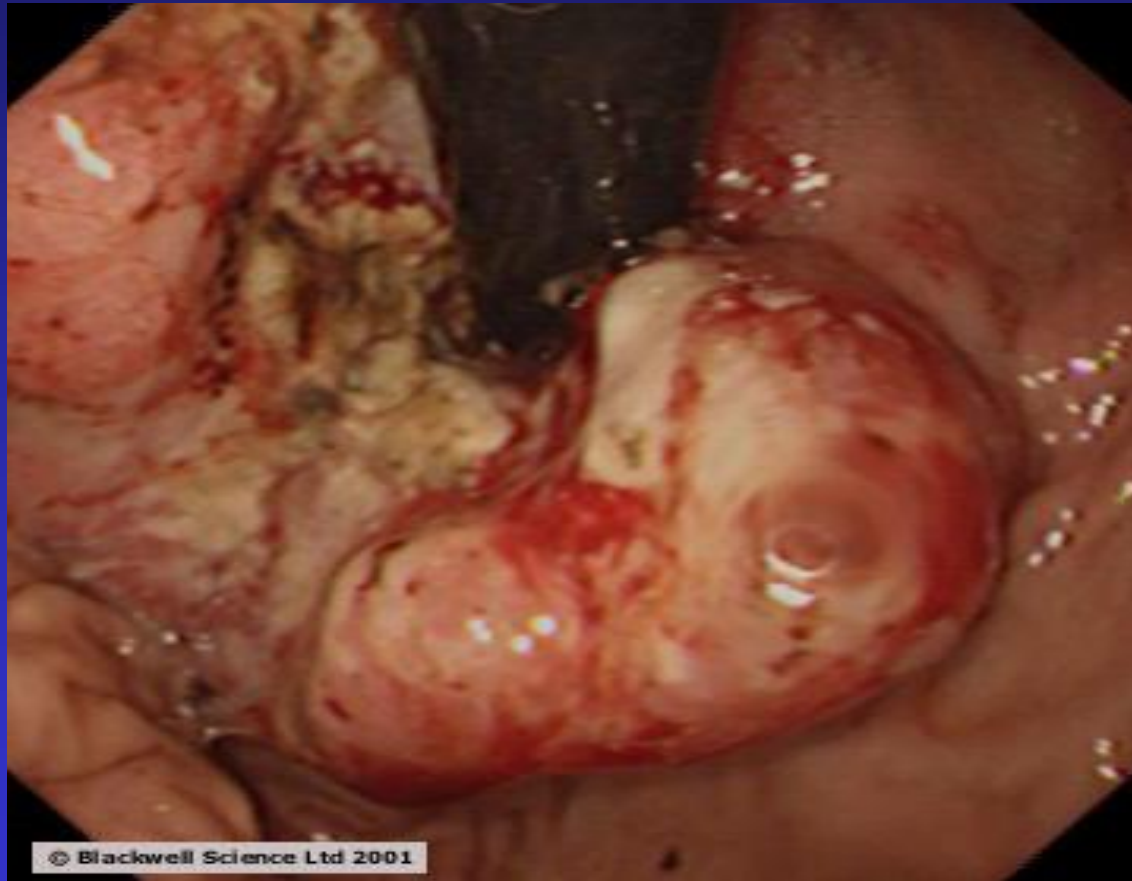
# ***ULCER***

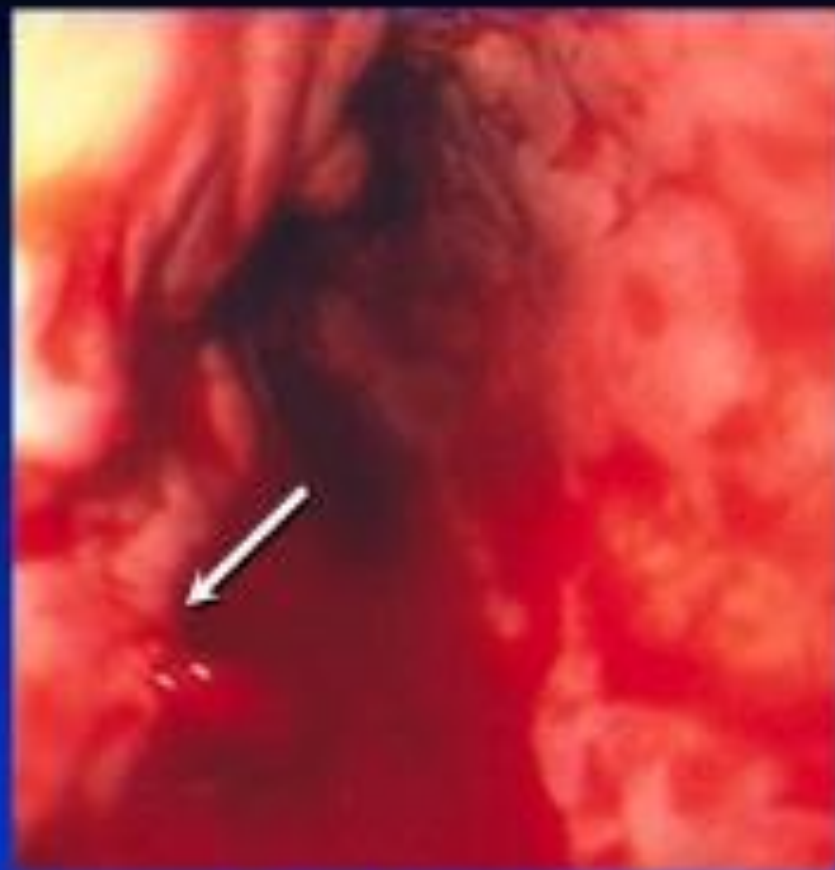
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# *Malignant Ulcer*

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Variceal hemorrhage



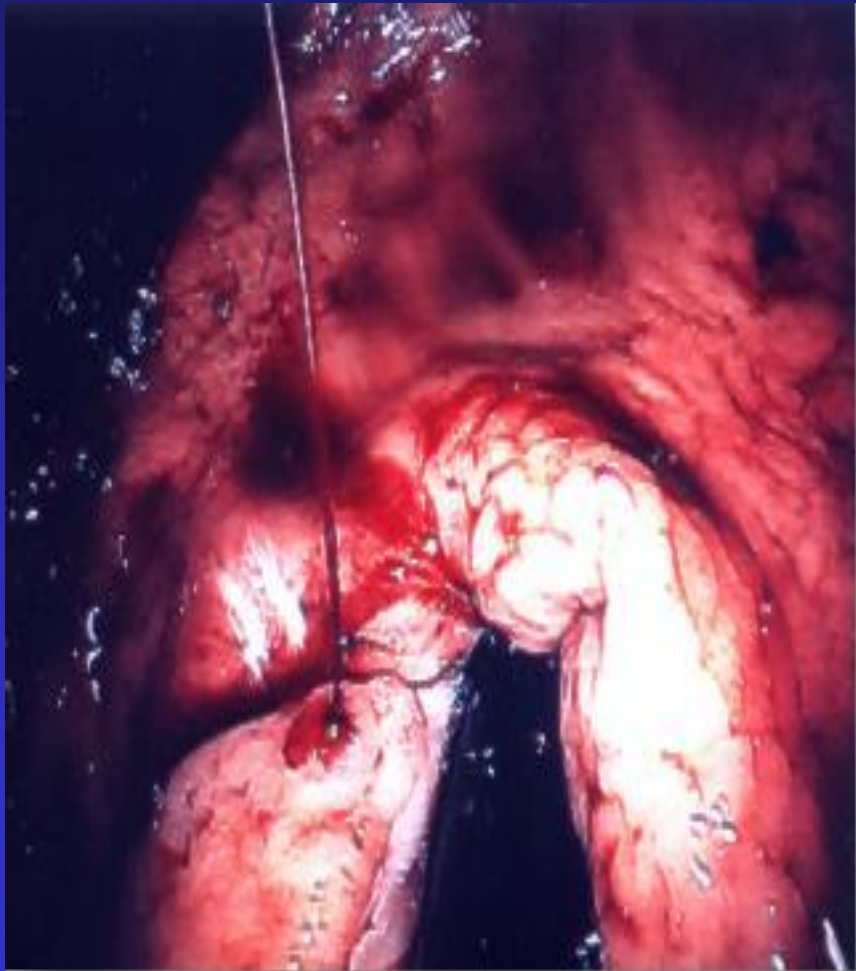
Varix with red signs

Predictors of hemorrhage:

- Variceal size
- Red signs
- Child B/C

# *Fundal varices, hemorrhage*

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# ***Introduction:***

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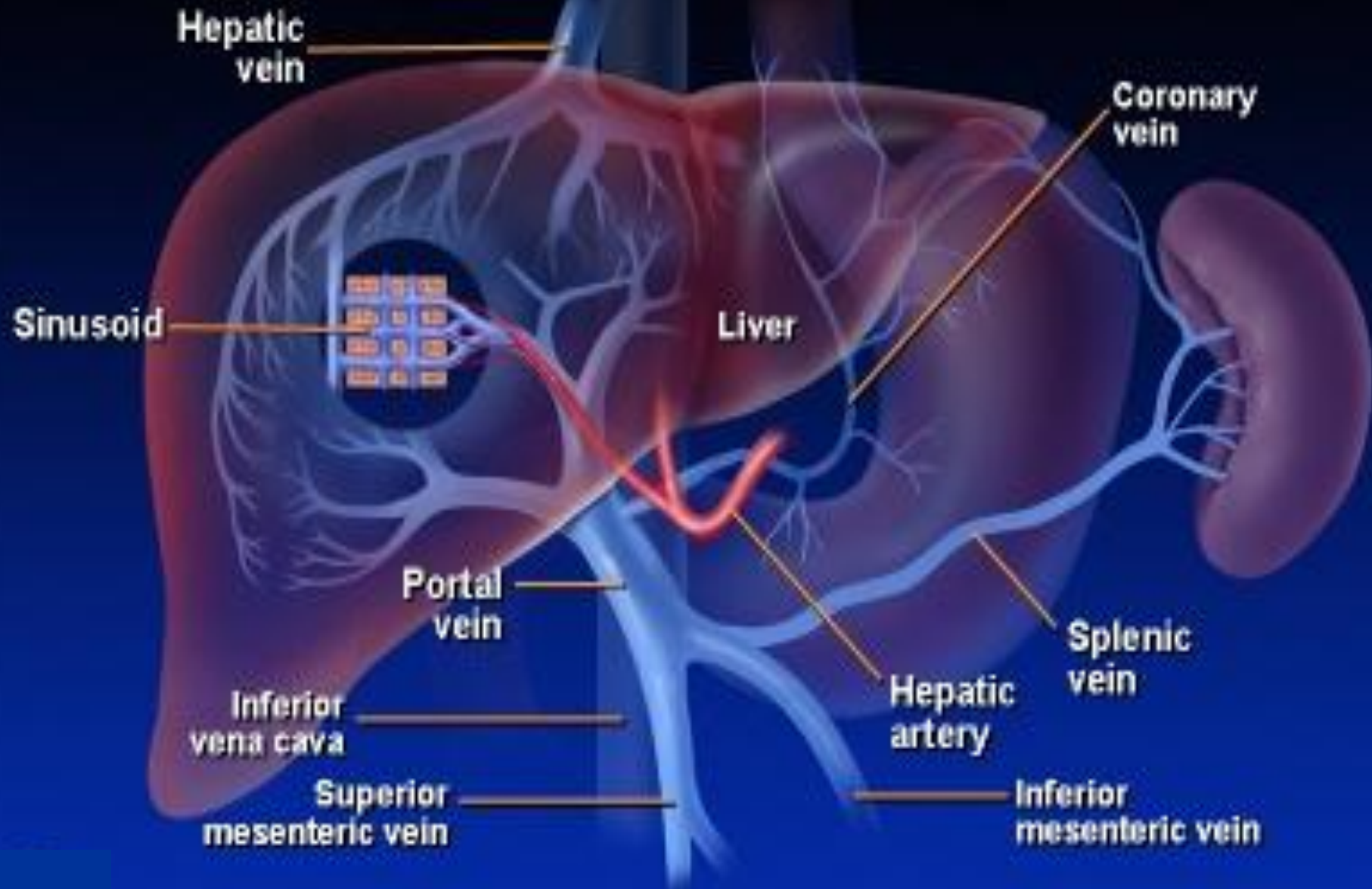
- **Bleeding from esophageal varices (EVs) or gastric varices (GVs) is a catastrophic complication of liver disease.**
- **Bleeding from GVVs is generally more severe than that from EVs but is less frequent.**
- **Many years ago surgery was the only treatment available.**
- **In the 1970s, techniques of Interventional Radiology (IVR) were developed and improved survival rates.**
- **In the 1980s, endoscopic treatment further improved survival rates.**

## ***Continue:***

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- **The risk of first variceal bleeding is related to:**
  - 1- Size of varix.**
  - 2- Child-Pugh score.**
  - 3- HVPG.**
  - 4- Mucosal red signs.**
- **6 weeks mortality rate is still very high ( 20%)**
- **Primary prophylaxis of first variceal bleeding is therefore an important therapeutic goal.**

## Normal Vascular Anatomy



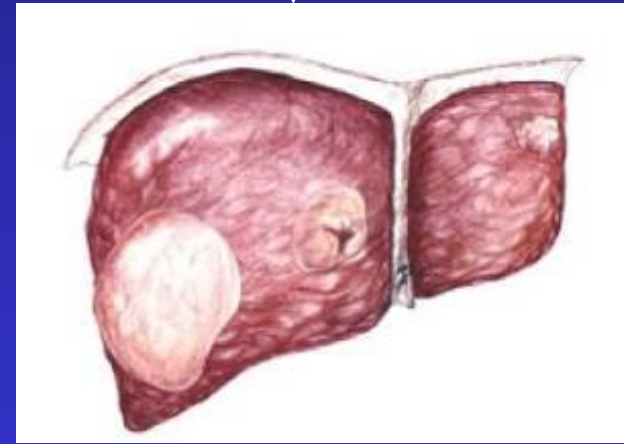
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***PORTAL  
HYPERTENSION***

**Pre sinusoidal**  
a) Extra hepatic  
and  
b) Intra hepatic

**Sinusoidal**

**Post sinusoidal**  
a) Extra hepatic  
and  
b) Intra hepatic



# Diagnosis of EVs and GVs:

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- **EVs : Japan Society of Portal Hypertension:**  
On the basis of color { White ( Cw) or Blue ( Cb ) }
  - F1 small and straight
  - F2 nodular.
  - F3 large or coiled.
  - F4 plus red color signs ( RC 0-3 ).
- **GVs :**
  - Involving the cardia ( Lg-c ) CVs.
  - Involving the fundus ( Lg-f ) FVs.
  - both the cardia and the fundus ( Lg-cf ).

## Varices Increase in Diameter Progressively



No varices

Small varices

Large varices

7-8%/year

7-8%/year

# ***FUNDAL VARIX***

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# *Treatment Modalities:*

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- **Bleeding is classified as:**
  - **Gushing.**
  - **Spurting.**
  - **Oozing.**
- **Modalities:**
  - A) **Pharmacologic therapy.**
  - B) **Endoscopic treatment.**
  - C) **Interventional Radiology ( IVR ).**
  - D) **Surgery.**

# Pharmacologic Therapy:

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- **IV Splanchnic vasoconstrictors :**  
vasopressin, terlipressin, nitroglycerine,  
somatostatin or octeriotide.
- **Has 2 major advantages: Generally**  
applicable, and can be started as soon as  
variceal hemorrhage is suspected.
- **It is used in acute settings.**
- **Somatostatin infusion for 48**  
hours...advantages !!!!

# ***Interventional Radiology (IVR)***

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- **Developed in 1970s for treatment of EVs & GVs :**
- **A) Transportal obliteration. Using balloon catheter and the sclerosant 5% ethanolamine oleate iopamidole ( EOI ).**
- **B) Balloon-occluded retrograde transvenous obliteration ( B-RTO ) : for ttt of FVs via femoral or internal jugular vein. Long term eradication without recurrence.**
- **C) Partial Splenic Embolization (PSE): to treat hypersplenism, GVs, EVs and portal hypertensive gastropathy.**

# IVR

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- **D) Transjugular Intrahepatic Portosystemic Shunt (TIPS): Significantly improved survival among high risk patients ( HVPG > 20 mm Hg, Child class C with a score > 10 points ).**

# ***ENDOSCOPIC TREATMENT***

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- **Endoscopic Injection Sclerotherapy (EIS) or Endoscopic Variceal Ligation (EVL).**
- **A) EIS: 1) Intravariceal EIS. Using EOI or Histoacryl.  
2) Extravariceal EIS. Using 5% EOI.**

**Complications: bleeding, perforation, fever, sepsis and embolization of distant vascular bed.**
- **B) EVL: Safe and simple. Reported early recurrence  
Why?**

# EVL

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- Point of start.
- How many bands per session.
- Duration between 1<sup>st</sup> and 2<sup>nd</sup> session.
- How to deal with perforators. Combined EVL & EIS.

# ***ENDOSCOPIC BAND LIGATION***

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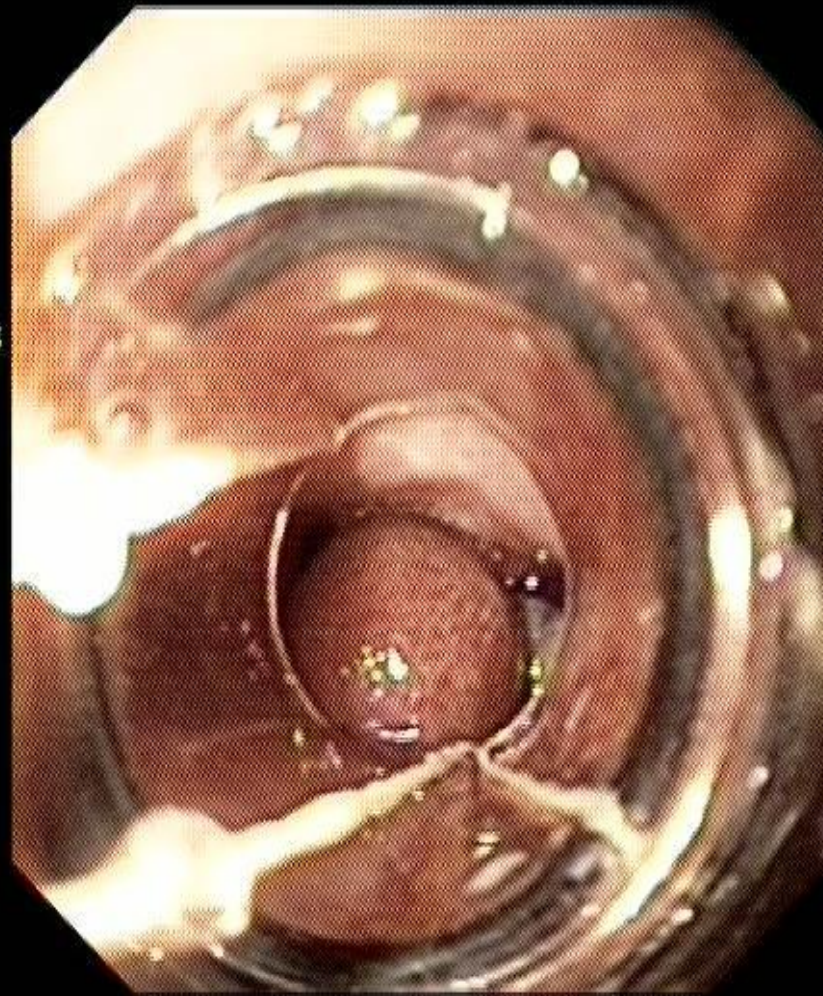
2

23/11/2010

16:22:33

Cr:N

Fr:A3





# Management of Acute Variceal Bleeding

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- **Treatment Strategy:** Correct hypovolemic shock, stopping of hemorrhage, prevent complications due to hge, monitor vital signs and urine volume.
- **In ICU.** Resuscitation, airway protection, antibiotics ( decrease rebleeding and infection) so should be considered in all cases of liver cirrhosis with acute variceal bleeding. PPIs ( clot stabilization).
- **When to do endoscopy?**
- **FVs:** must insure complete obliteration of blood flow ( Hard varix with no cystic part ).

# *Histoacryl Injection*

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ID:  
Name:

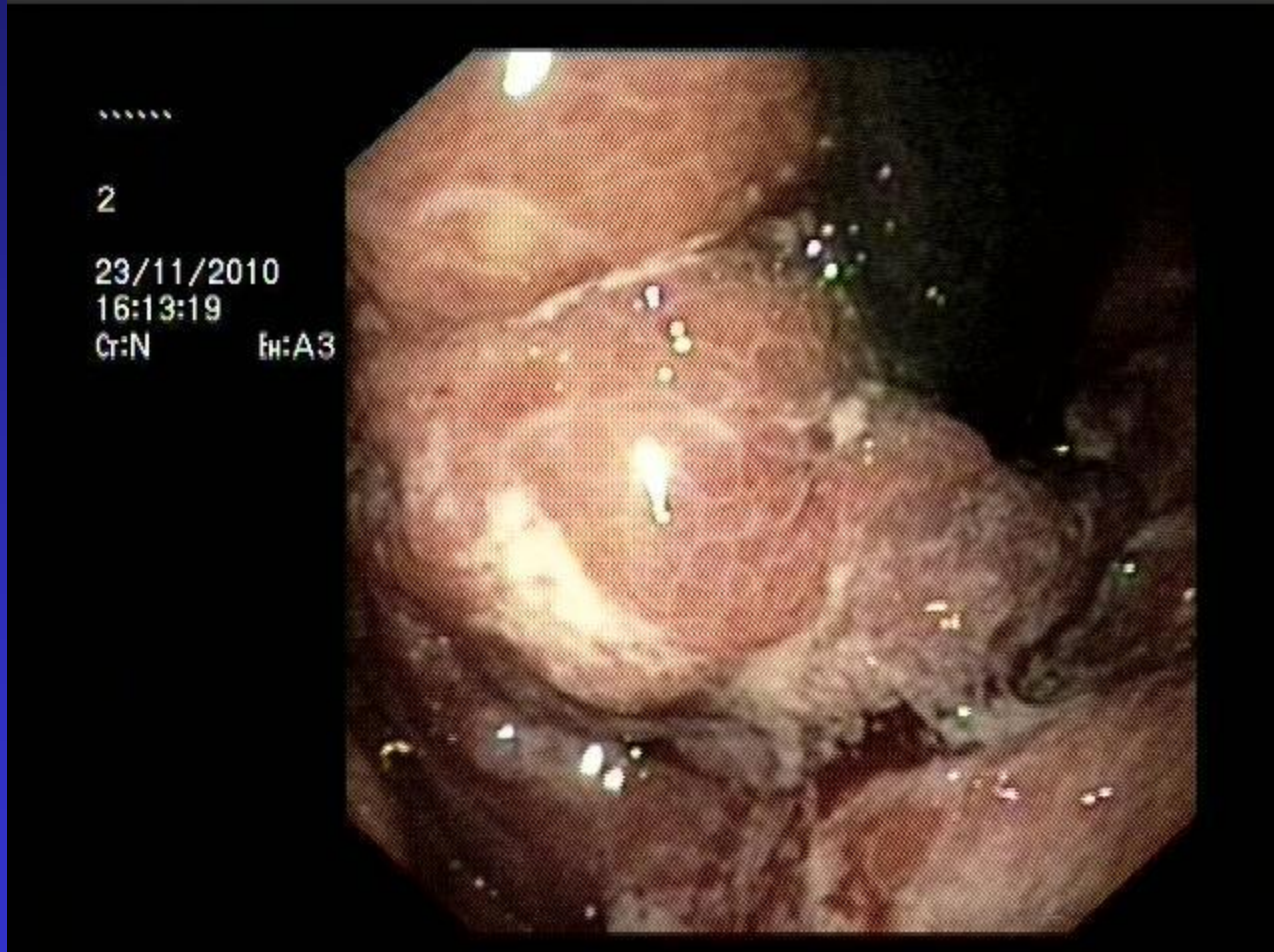
Sex: Male  
D.O.B.: 05/06/2011  
16:52:09  
Cr:N 16:A1

Physician:  
Comment:



# ***INJECTED FUNDAL VARIX***

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# Prevention of Recurrent Variceal Hemorrhage

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- **Primary prophylaxis:**
  - EVL versus Propranolol. Are comparable in primary prophylaxis of large EV.**
- **Secondary Prophylaxis.**



THANK YOU

