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GASTROENTEROLOGY FOUNDATION OF SUB-SAHARAN AFRICA
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# Portal Gastropathy and Gastric Antral Vascular Ectasia

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# Portal Hypertensive Gastropathy (PHG)

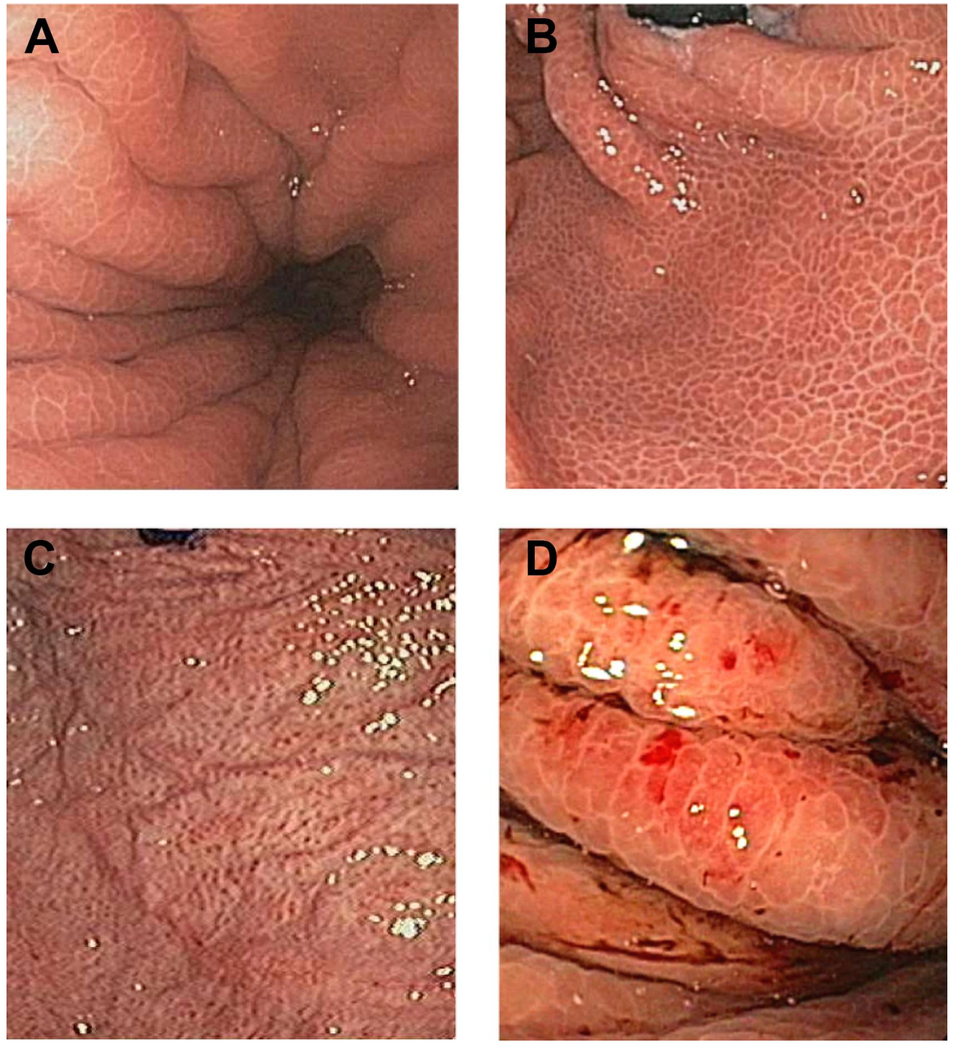
## Introduction

- Endoscopic diagnosis
- 20-80% of patients with Portal hypertension have PHG
- Similar lesions can be present throughout the GIT
  - Portal enteropathy
  - Portal Colopathy

# Portal Hypertensive Gastropathy (PHG)

## Pathophysiology

- Correlated with Hepatic Venous Wedge Pressure
- Increased Cardiac output and lower Vascular resistance
- Local factors such as Ischaemia and Nitric Oxide



# Classification

## North Italian Endoscopic Club

Mosaic like pattern

Mild – diffusely pink areola

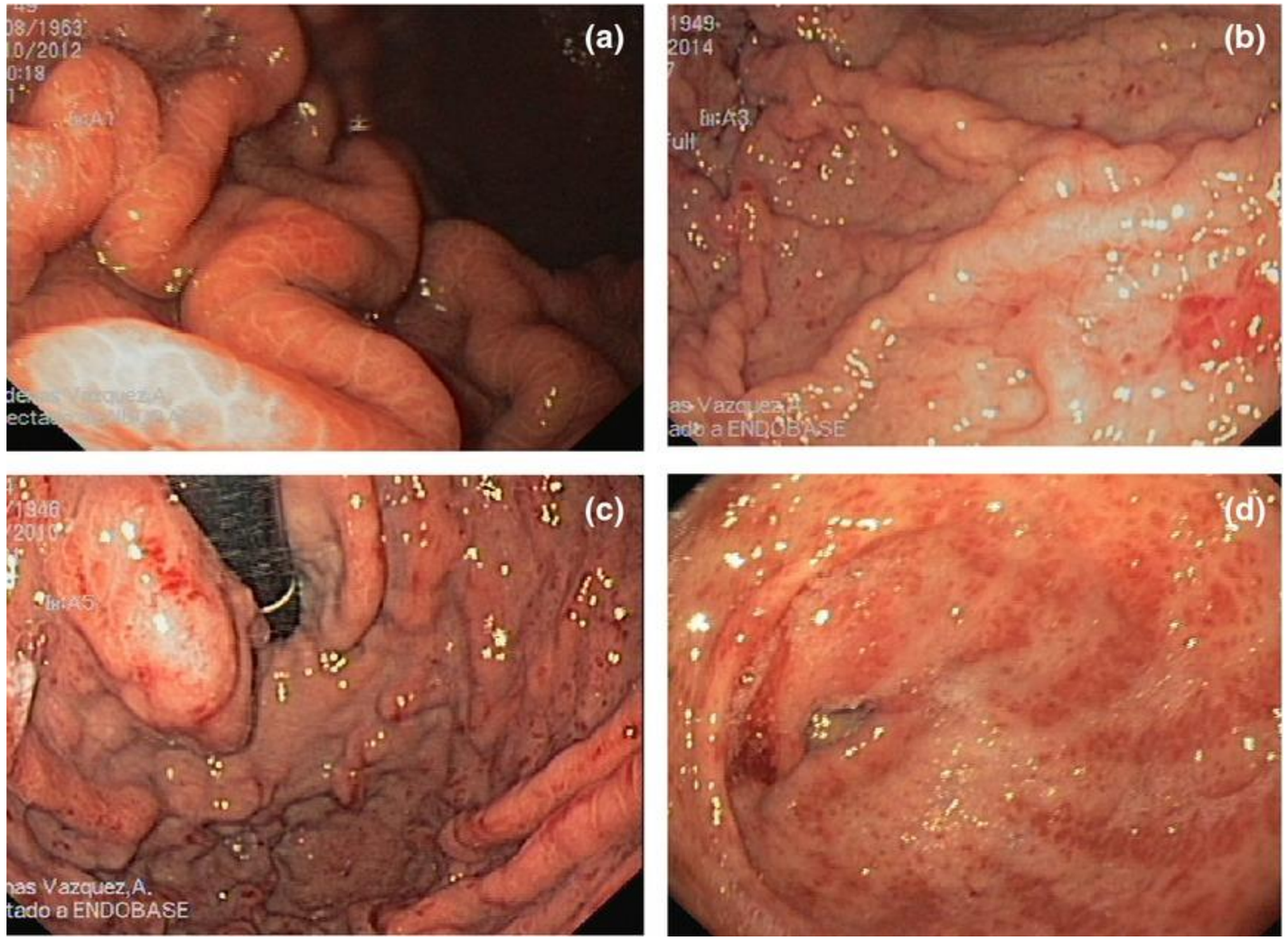
Moderate – flat red spot in centre of pink areola

Severe – diffusely red areola

Red marks

Red lesions of variable diameter, flat or slightly protruding

Discrete or confluent

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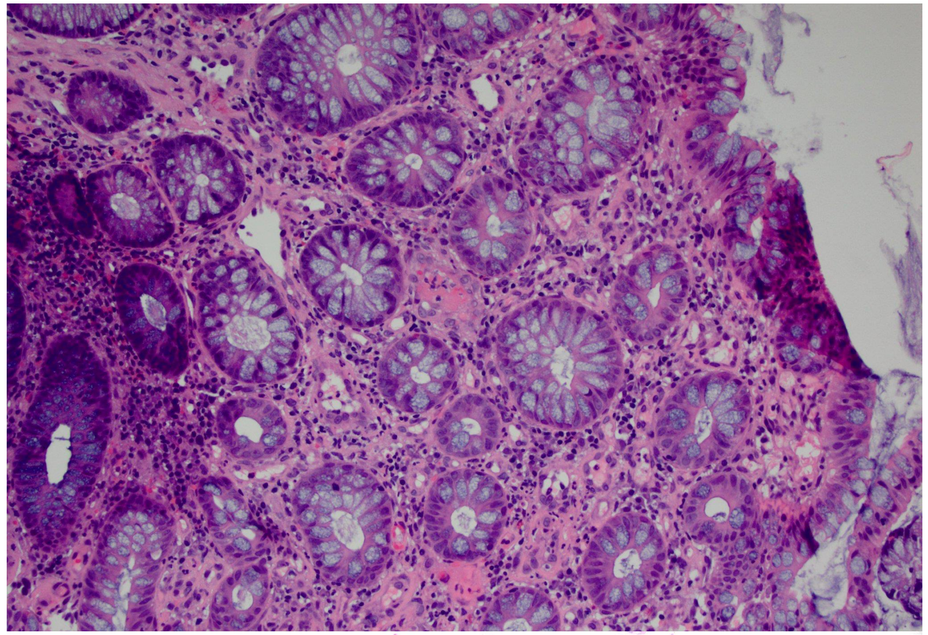
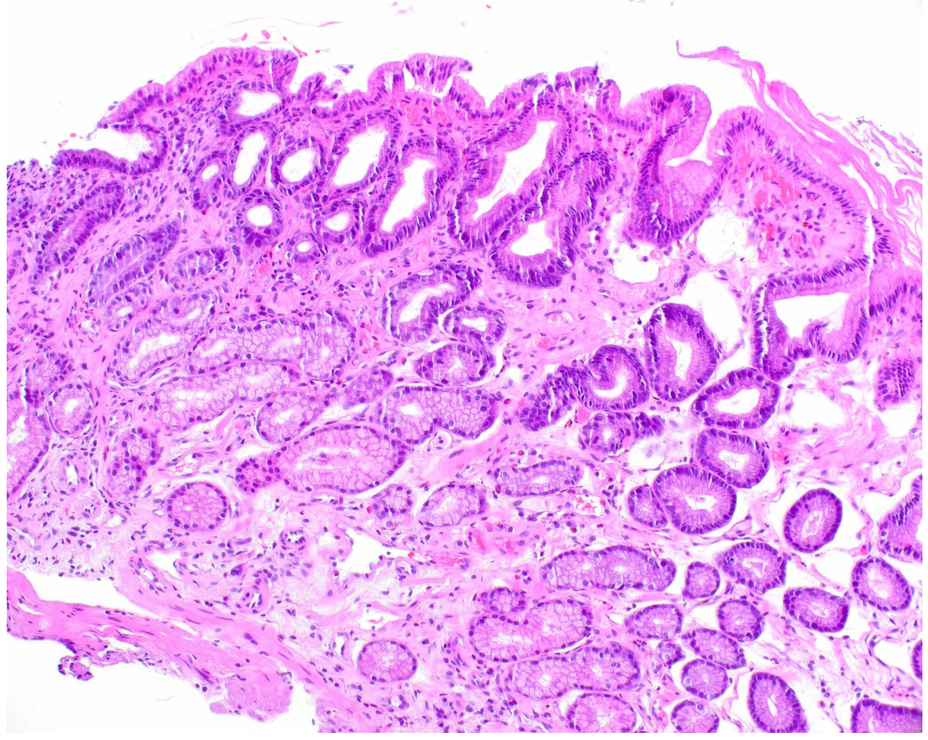
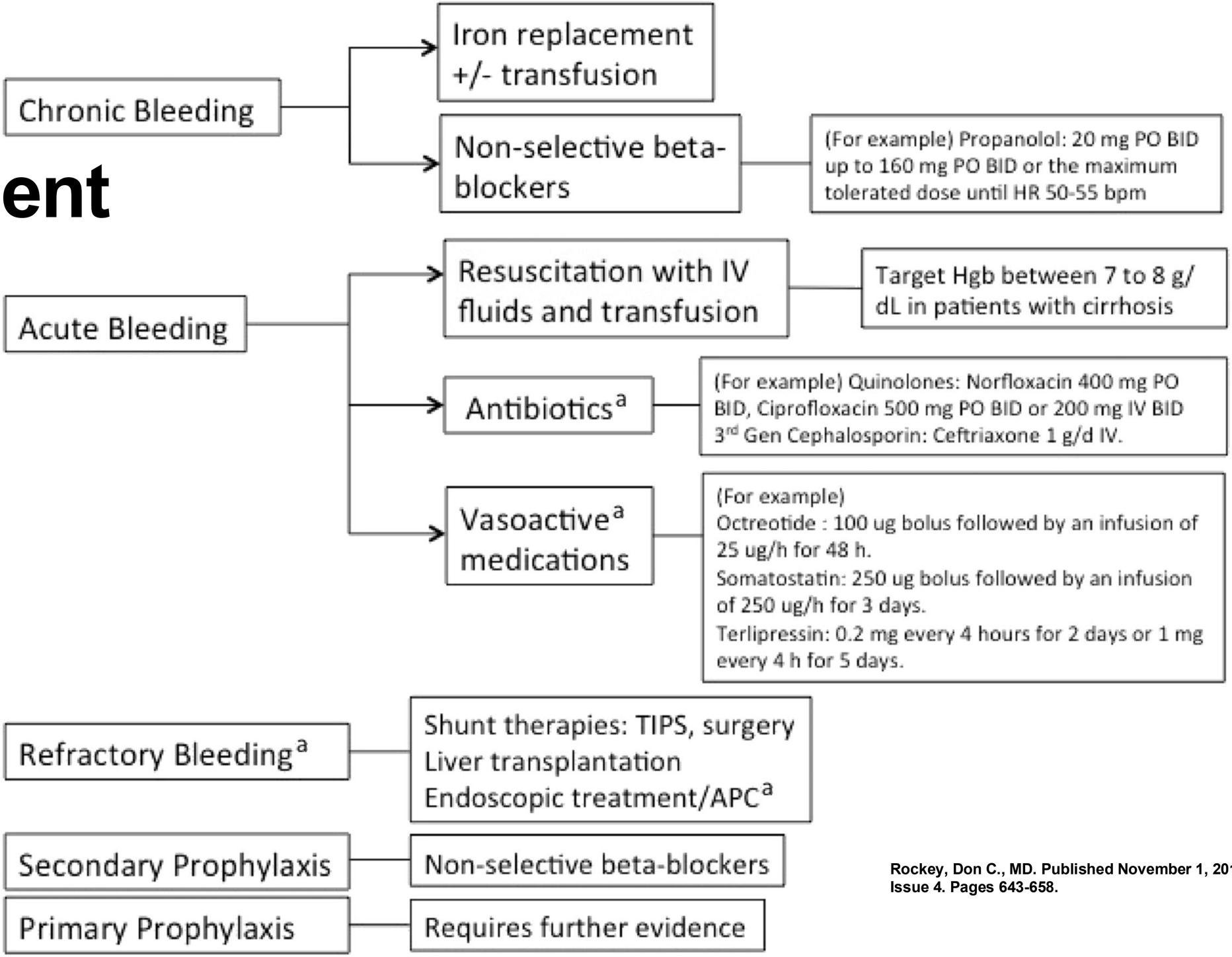
# Portal Gastropathy and Colopathy

| Features | Portal Hypertensive Gastropathy | Portal Hypertensive Colopathy |
|---|---|---|
| **Pathology** | Dilated capillaries and venules | Edema and capillary dilatation, |
| | No inflammation | lymphocytes and plasma cells |
| **Endoscopic Characteristics** | Classic mosaic pattern and red spots | Vascular ectasias |
| | | nonspecific mucosal changes |
| **Differential Diagnosis** | GAVE | Idiopathic vascular ectasia, |
| | Inflammatory gastritis | nonspecific inflammation |
| | nonspecific inflammation | |
| **Treatment** | Iron replacement therapy | (-) Iron replacement therapy |
| | Transfusions | Transfusions |
| | Portal pressure reducing pharmacologic agents | Portal pressure reducing pharmacologic agents |
| | | APC, sclerotherapy, ligation |
| **Salvage Treatment** | TIPS/Shunt surgery | TIPS/Shunt surgery |
| | APC | Surgery |
| | Liver transplantation | Liver transplantation |





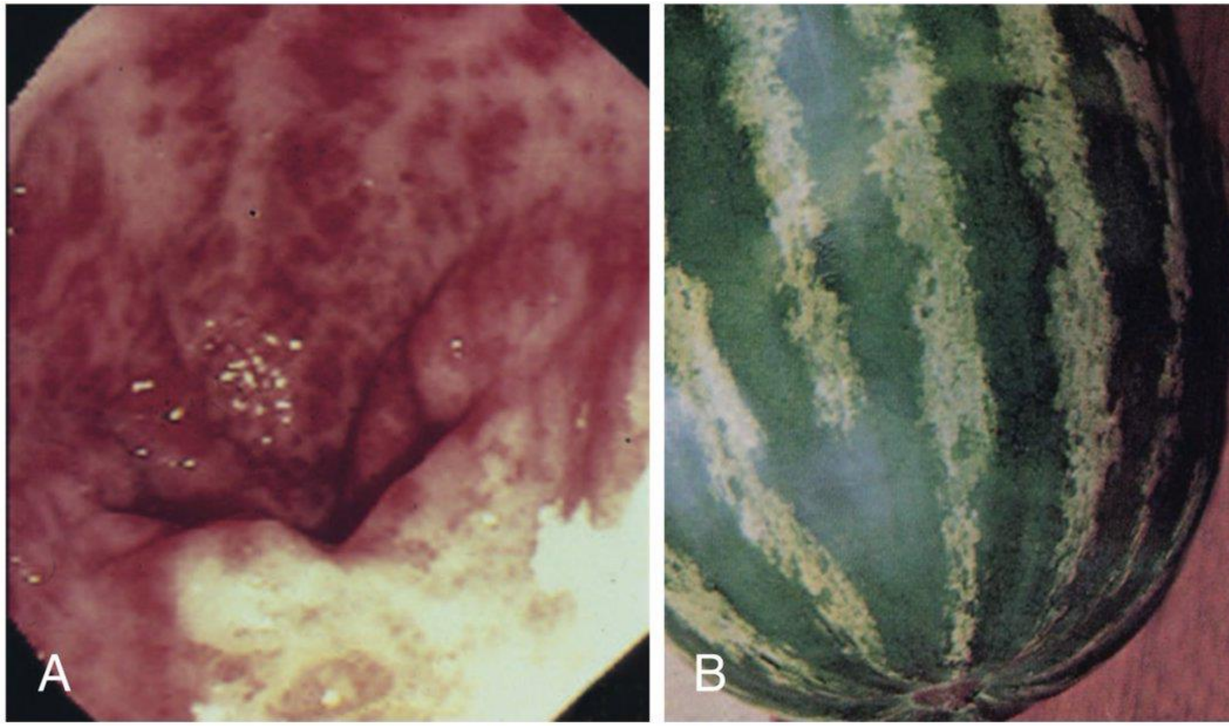
# Management




Rockey, Don C., MD. Published November 1, 2019. Volume 23, Issue 4. Pages 643-658.

# Gastric Antral Vascular Ectasia

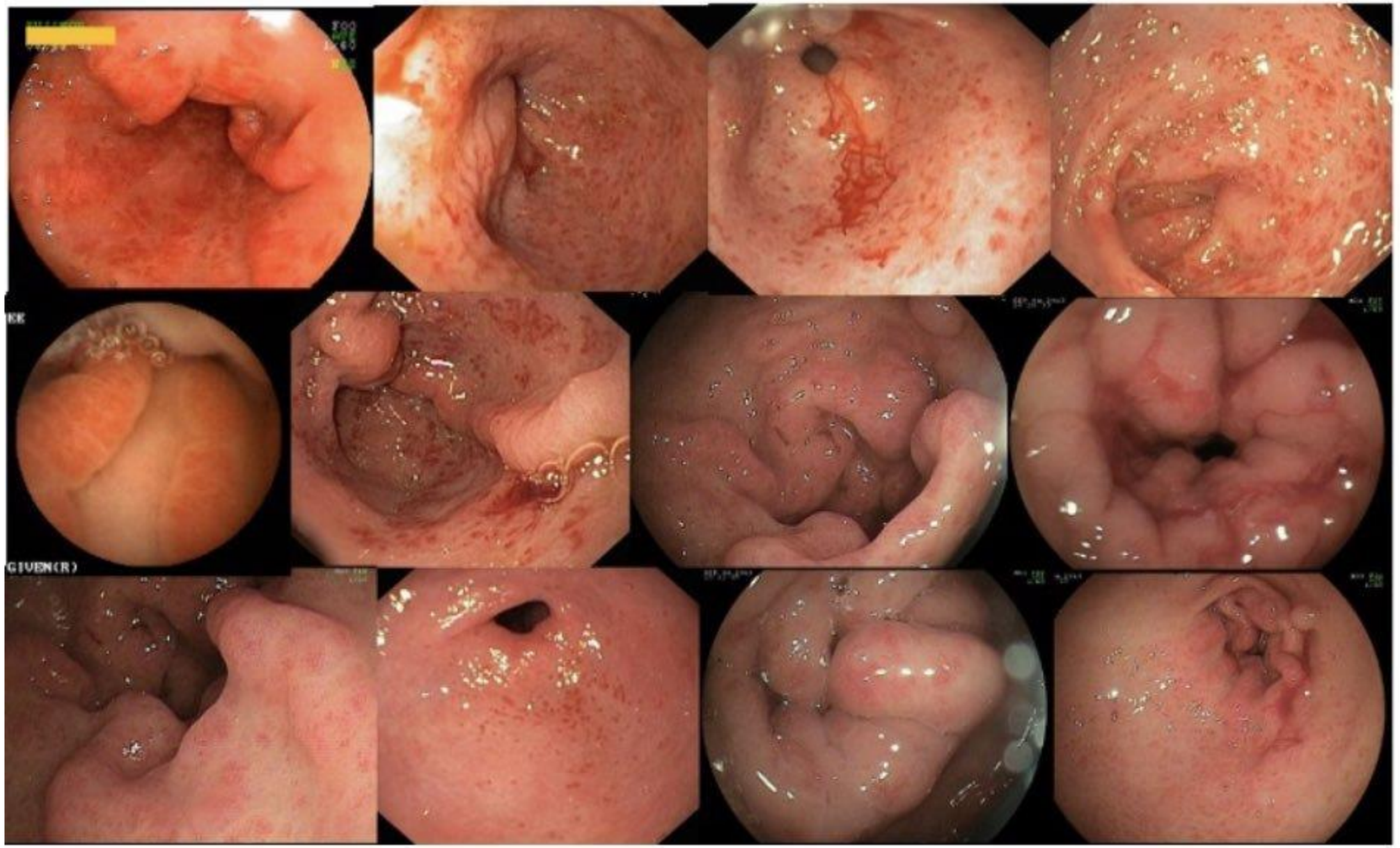
- 4% of all GI bleeding
- Severe form of Gastritis with marked vent-capillary ectasia
- More commonly associated with Connective tissue disorders
- 30% of GAVE is associated with cirrhosis



# Gastric Antral Vascular Ectasia

ENDO COLLAB

## Endoscopic Spectrum of Gastric Antral Vascular Ectasia (GAVE)

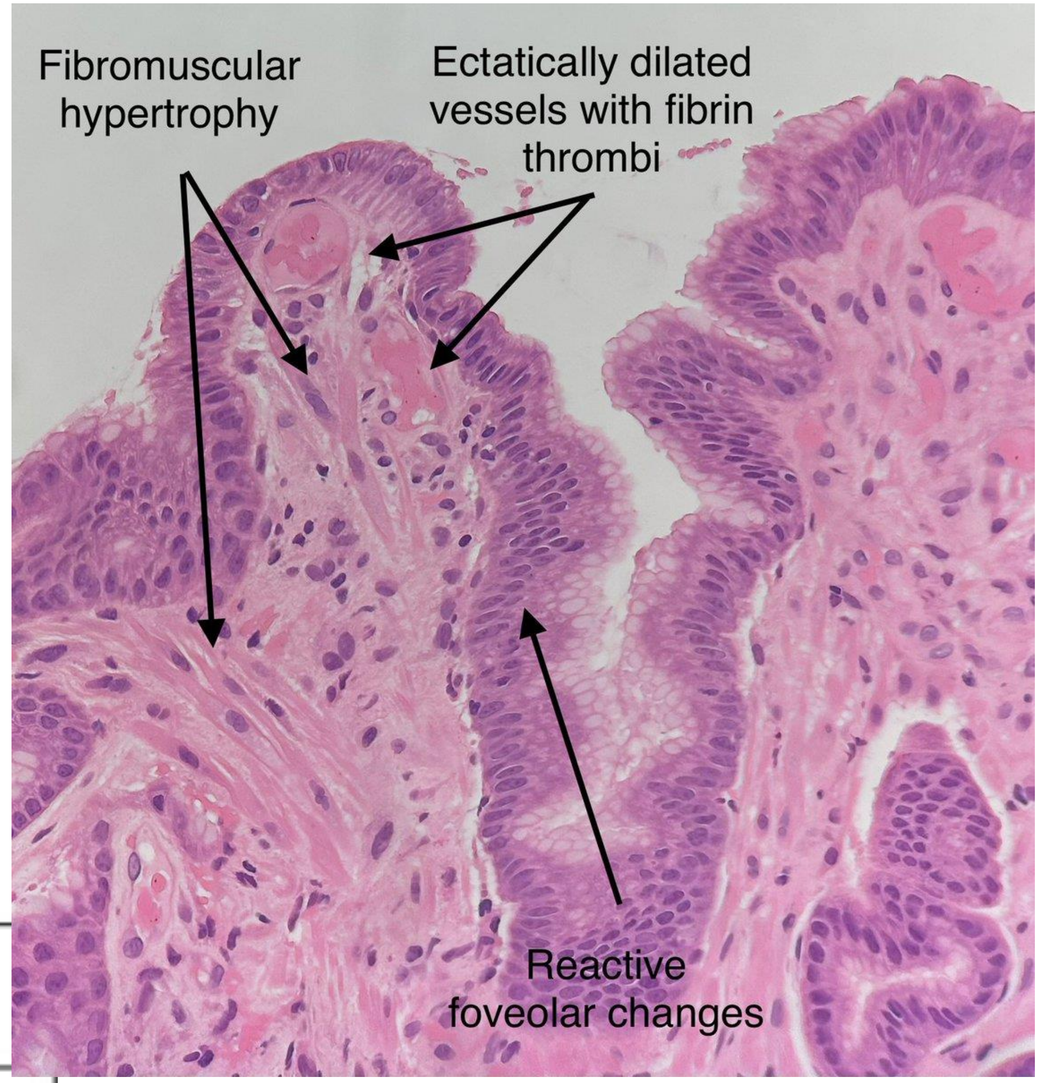



**Types**

- **Linear**
- **Honeycomb**
- **Nodular**
- **Giant Folds**
- **Mixed**

# GAVE

Diagnosis




Histological score system for GAVE.

| GAVE score (range 0-5) | | | |
|---|---|---|---|
| Gilliam's score (range 0-4) | | | |
| SCORE | THROMBUS OF FIBRIN AND / OR VASCULAR ECTASIA | FIBROMUSCULAR HYPERTROPHY | *FIBRO-HYALINOSIS* |
| 0 | Both Absents | Absent | *Absent* |
| 1 | One Present | Increased | *Present* |
| 2 | Both Presents | Much Increased | - |

Score of >3 = GAVE

# GAVE

## Pathophysiology

- Unknown
- Inflammatory mediators thought to play a major role
- Gastrin and Prostaglandin E act as vaso-mediators driving dilatation
- Portal hypertension is not thought to be a driving factor

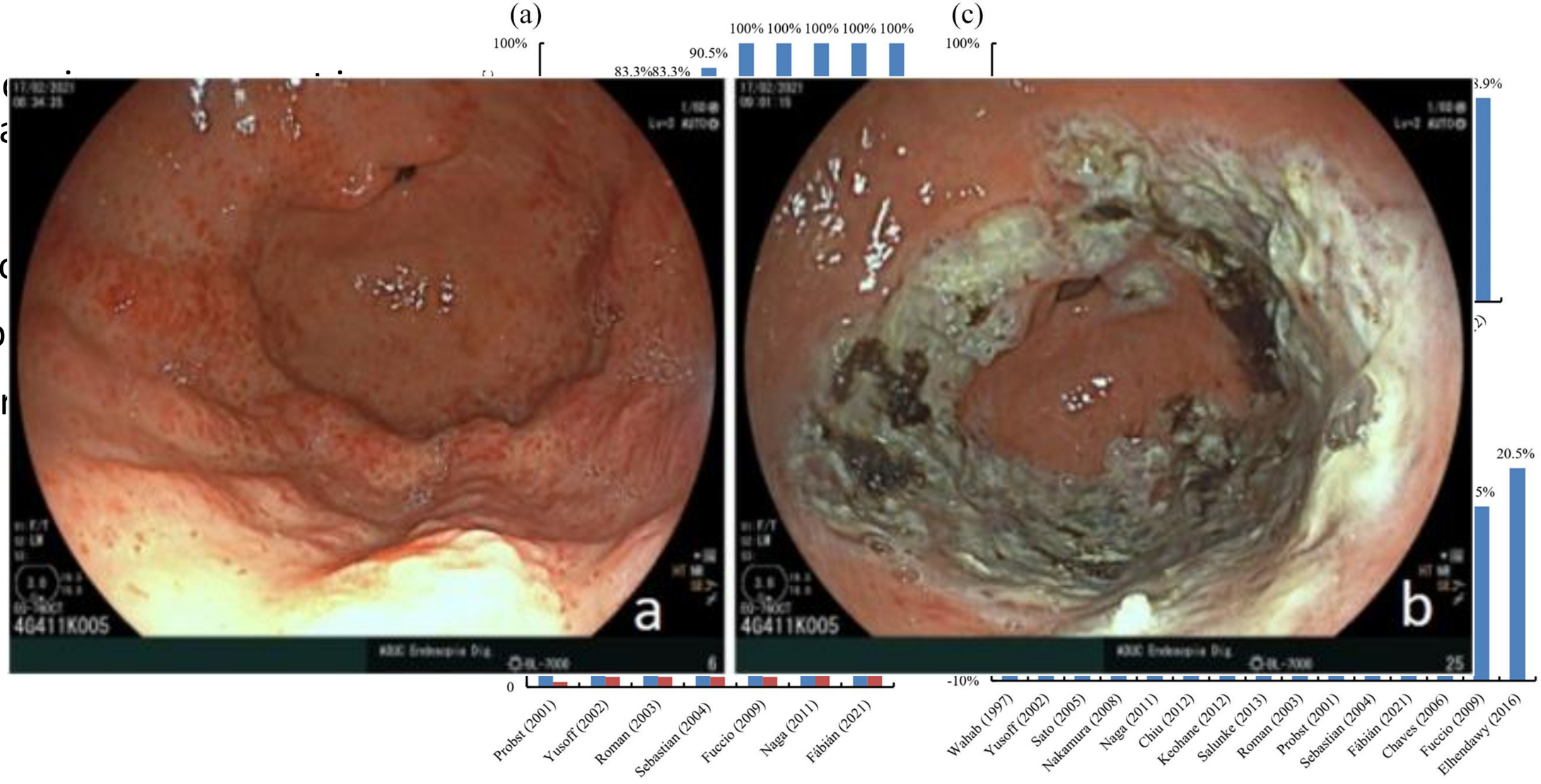
# GAVE

## Treatment

- Surgery - 50% 30 day mortality rate
- Medical management
  - Estrogen - No difference in transfusion rates
  - Octreotide - No difference in transfusion rates but a decrease in overt bleeding episodes noted
  - Thalidomide- Rise in Haemaglobin
    - Small series
  - Bevazicumab - Single dose with good response
    - Some may need further dosing

# GAVE

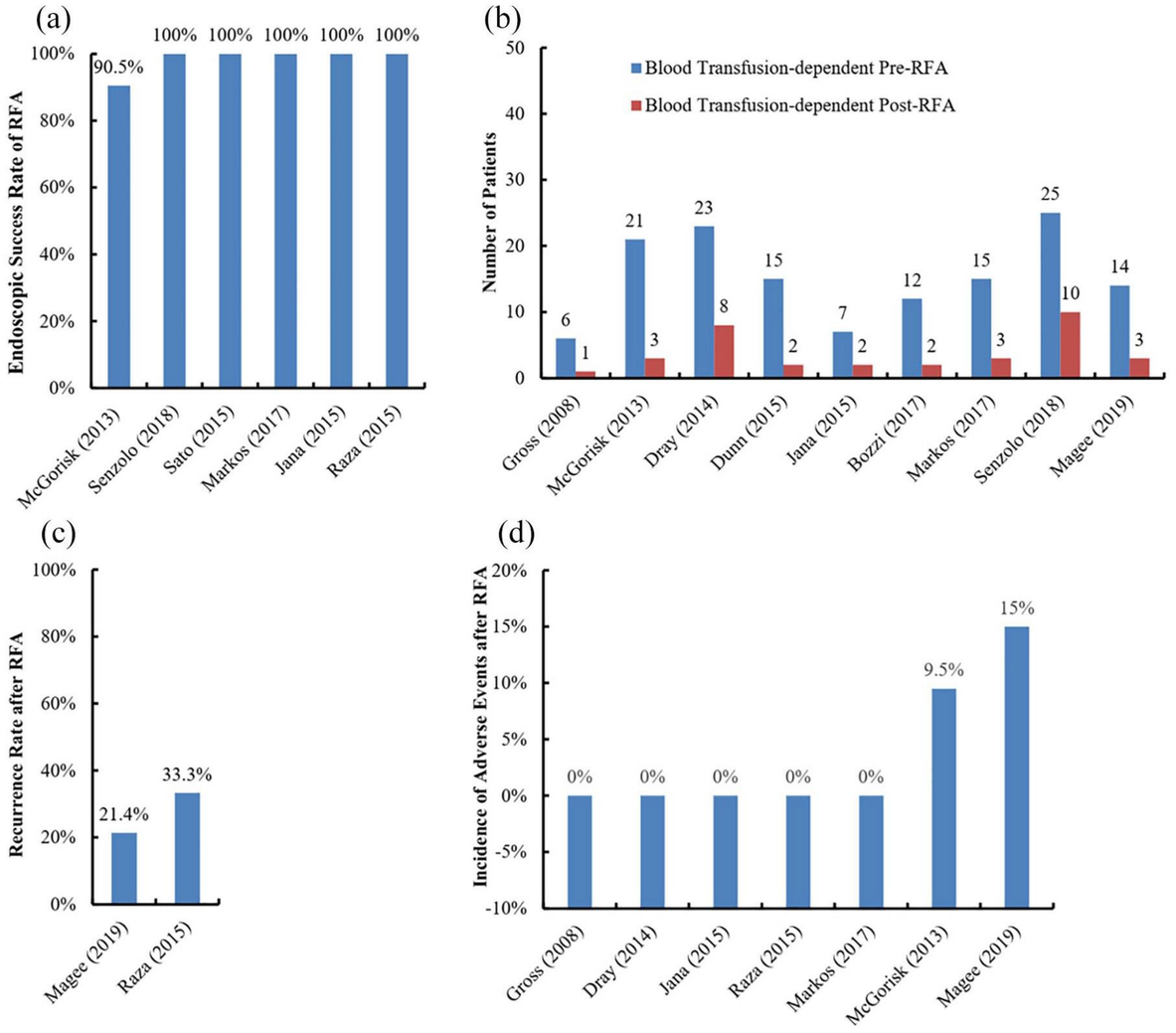
- Endos
  the ma
- APC
- Easy t
- Cheap
- Moder



# GAVE

## Treatment - Endoscopic RFA

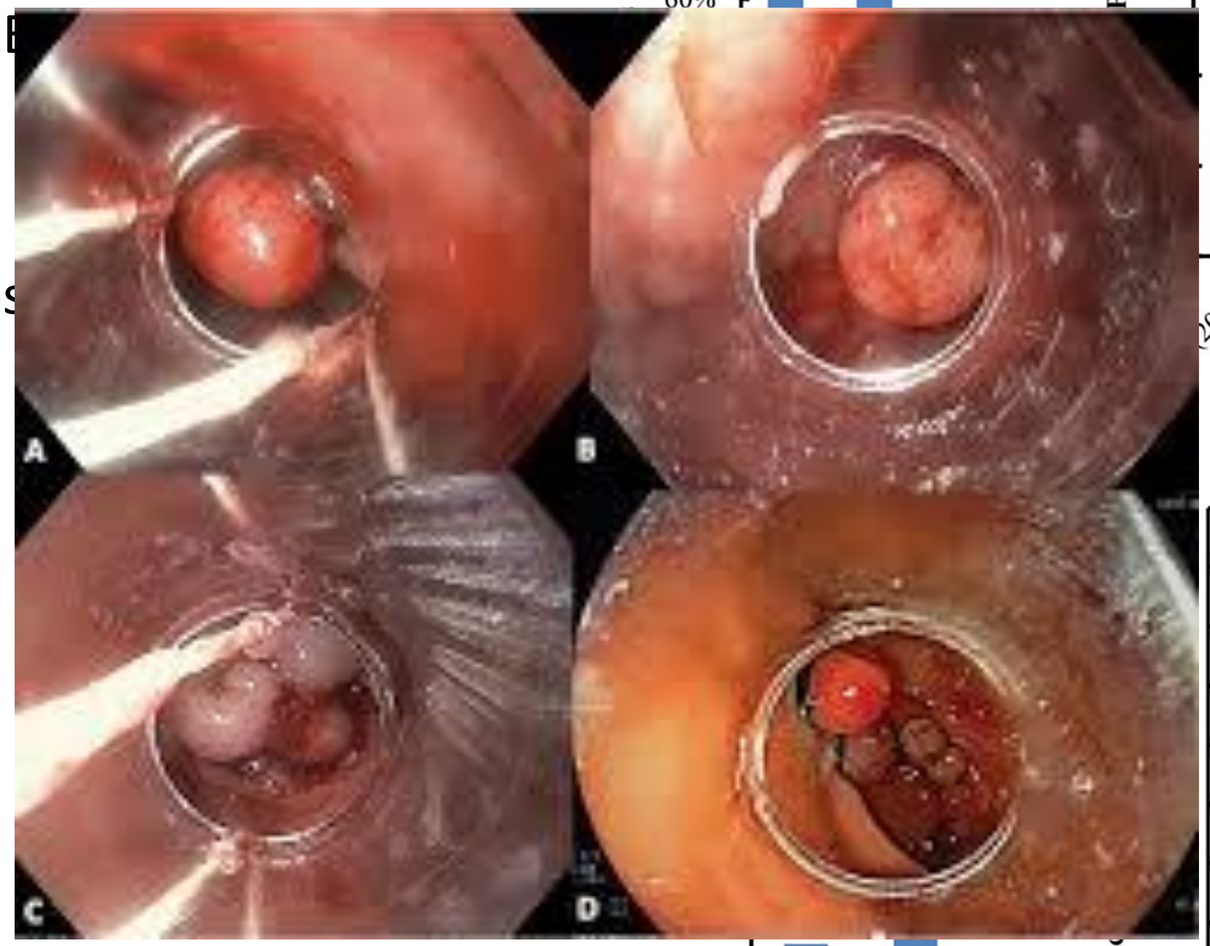
- More Expensive
- Quicker and can treat a wider area



# GAVE

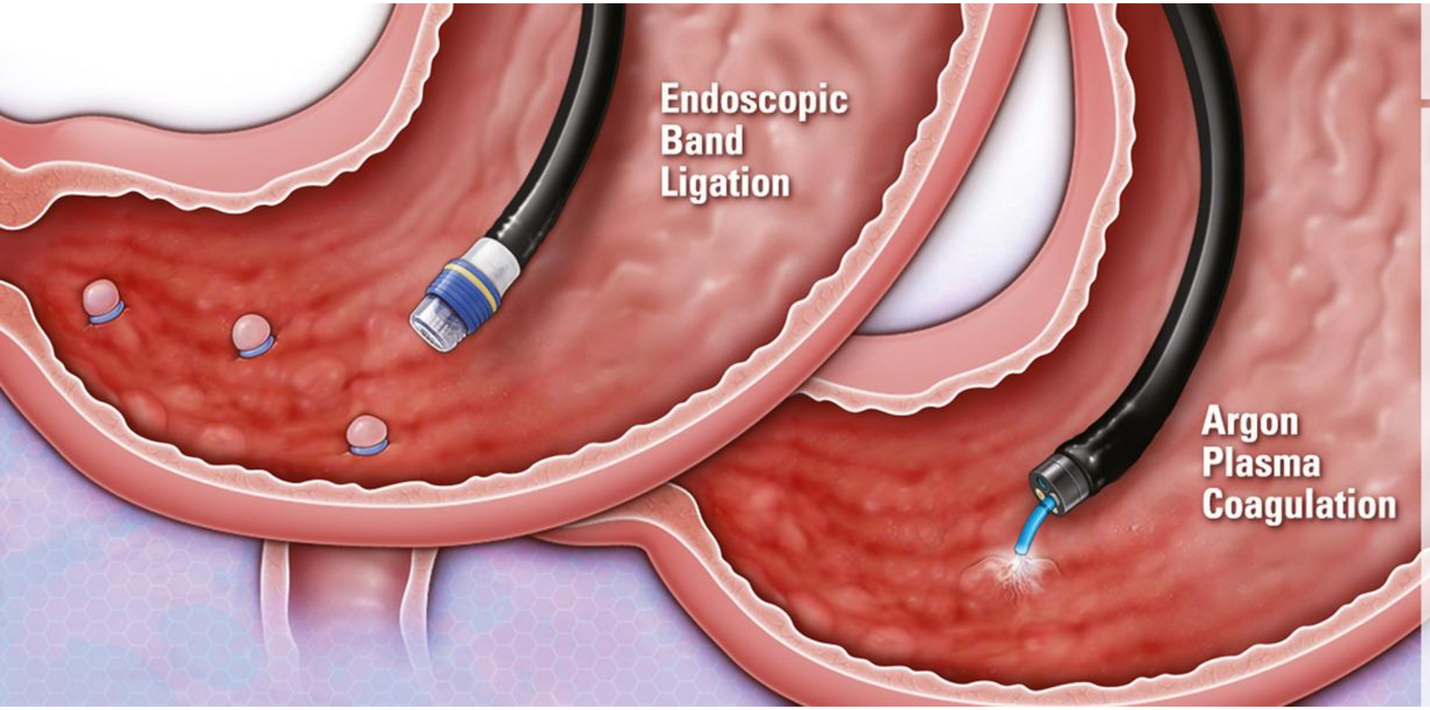
Treatment - Endoscopic EB

- Easy to use
- Low to moderate in cos
- Effective



# GAVE

Treatment EBL vs APC




**RESULTS: 10 Studies involving 476 subjects**

| | EBL | APC | |
|---|---|---|---|
| GAVE pooled eradication rate | 88.6% [CI 79.9-81.5; I2=13.5%] | 57.9% [CI 43.7-71; I2= 59%] | RR 1.52 [1.16-2.02; I2=72%; p<0.001] |
| Bleeding recurrence | 6.6% [CI 3.4-12.5; I2=0%] | 39.7% [CI 26.9-54.15; I2=55%] | RR 0.21 [0.09-0.44; I2=0%; p< 0.001] |
| GAVE recurrence | 7.3% [CI 3.8-13.6; I2=0%] | 38.5% [CI 24.4-54.9; I2=64%] | RR 0.22 [0.109-0.446; I2= 0%; p<0.01] |

# PHG vs GAVE

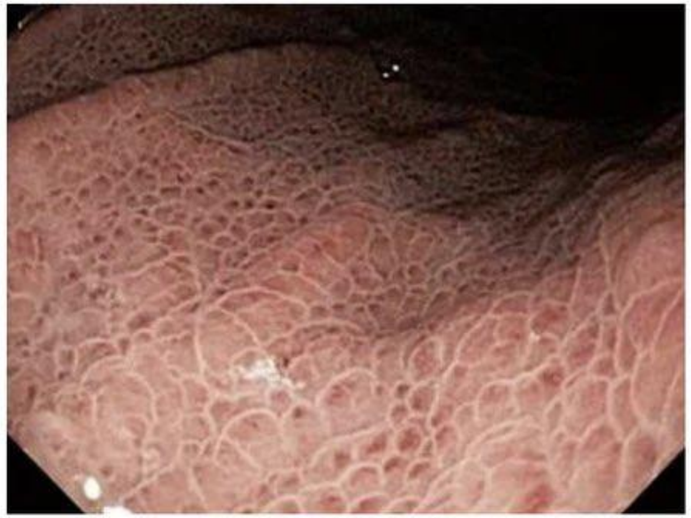
ENDO COLLAB

| FEATURE | PHG | GAVE |
|---|---|---|
| Relation with PH | Causal | Coincidental |
| Distribution in stomach | Mainly proximal | Mainly distal |
| Mosaic pattern | Present | Absent |
| Red color signs | Present | Present |
| Pathology | | |
| Thrombi | − | +++ |
| Spindle cell proliferation | + | ++ |
| Fibrohyalinosis | − | +++ |
| Treatment | $\beta$-adrenergic blockers<br>TIPS/shunt surgery | Endoscopic<br>Antrectomy and Billroth I<br>Liver transplantation |

PH: portal hypertension, TIPS: transjugular intrahepatic portosystemic shunt.

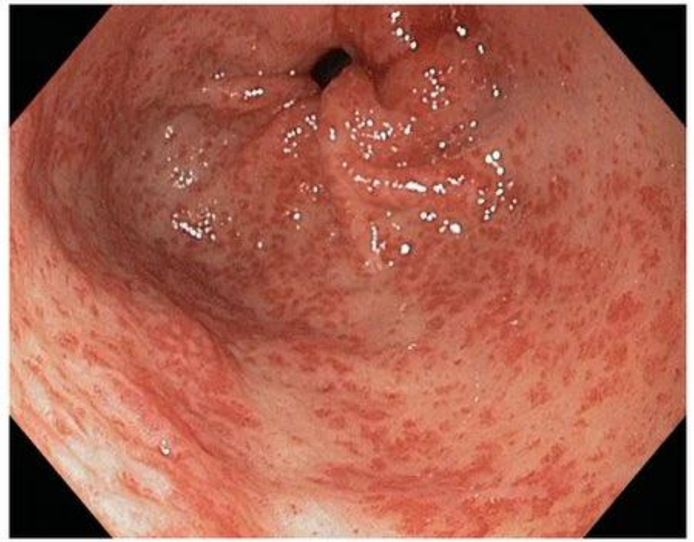
Said A. Al-Busafi, et al"Clinical Manifestations of Portal Hypertension", *International Journal of Hepatology*

PHG



https://www.wjgnet.com/1948-5182/full/v8/i4/231.htm

GAVE



http://gastrolab.fi/1a/gi-04.htm

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