

**แนวทางการดูแลรักษาผู้ป่วย
ภาวะเลือดออกในทางเดินอาหารส่วนต้นในประเทศไทย 2557**

จัดทำโดย

สมาคมแพทย์ส่องกล้องทางเดินอาหารไทย



thaitage.org

Tertiary Hospital



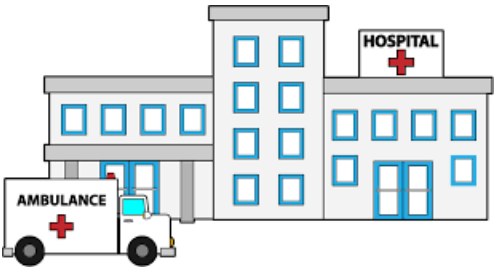
- + Liver transplantation
- + TIPS
- + IR
- + Advanced Endoscopy

Regional Hospital



- Endoscopy
- Surgery
- ICU
- ? IR

Provincial Hospital



- Endoscopy
- Surgery-limited
- ICU

District Hospital



- Resuscitation
- Triage

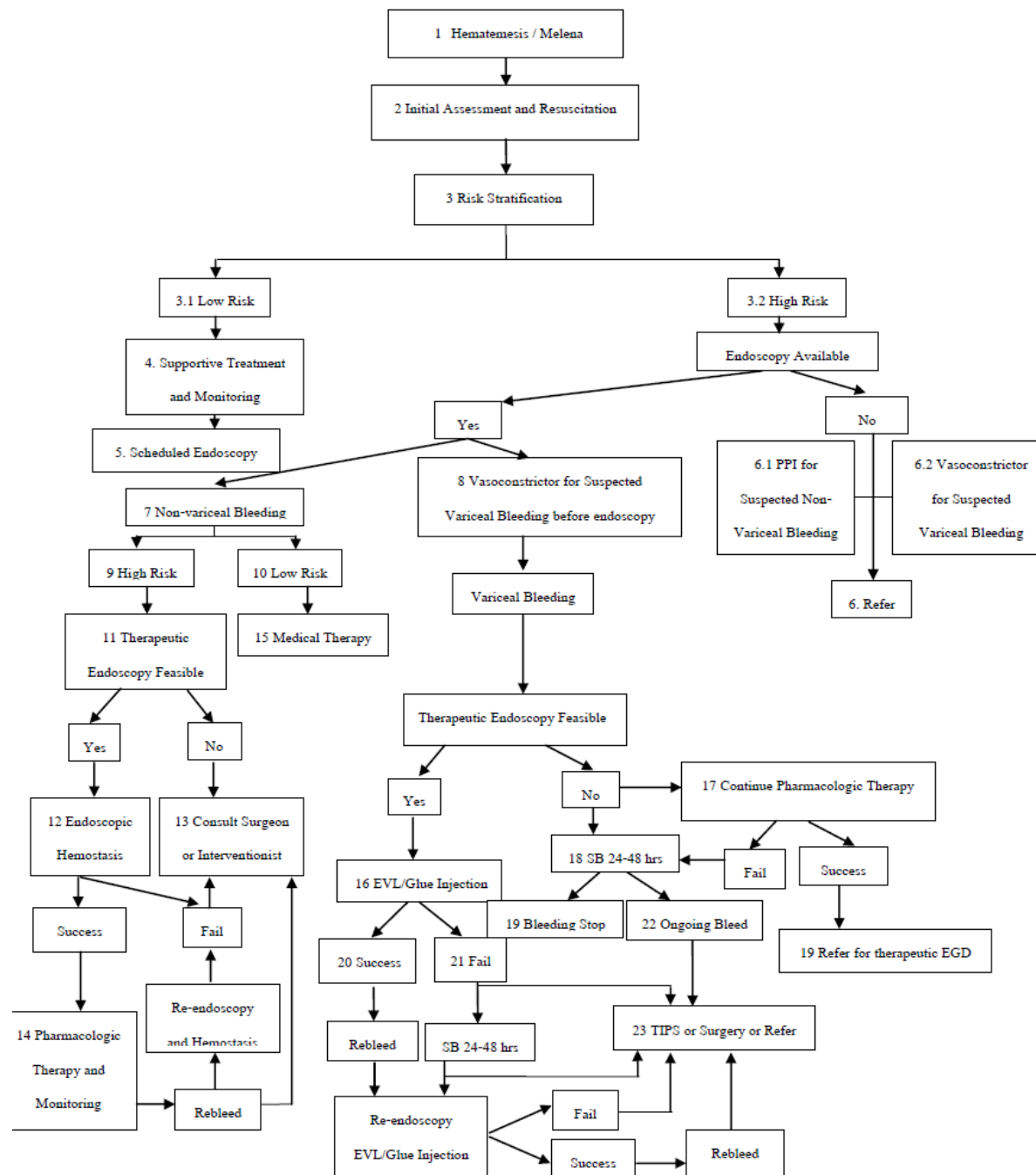


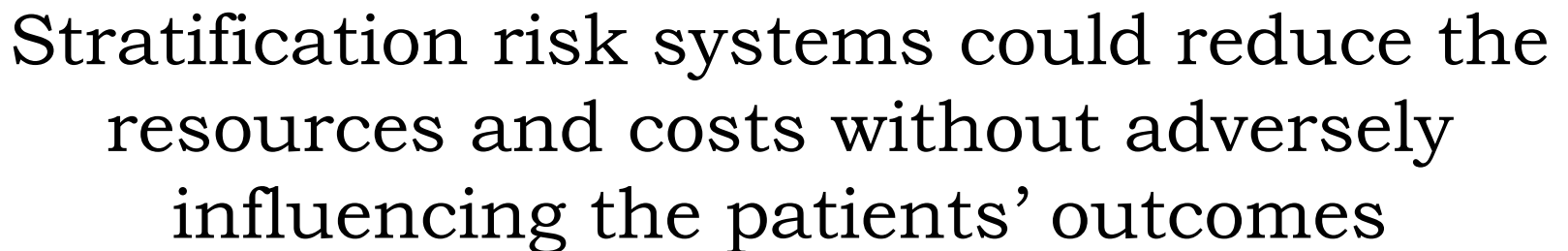
- Endoscopy
- Surgery-limited
- ICU?

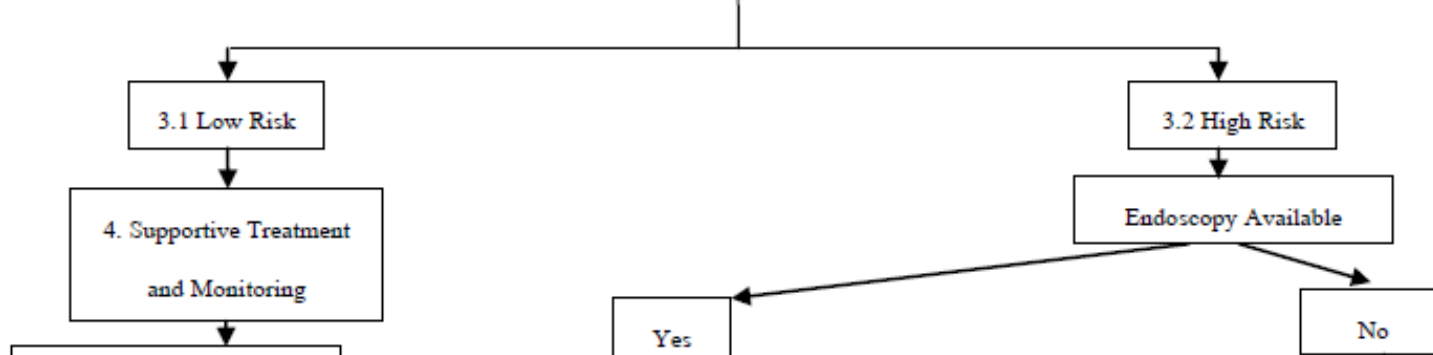
Health care unit



- Primary care







Glasgow blatchford score

Variable	Score
Blood urea (mmol/L)	
6.5-8	2
8-10	3
10-25	4
> 25	6
Hb (g/L) for men	
120-130	1
100-120	3
< 100	6
Hb (g/L) for women	
100-120	1
< 100	6
Systolic blood pressure (mmHg)	
100-109	1
90-99	2
< 90	3
Pulse $\geq 100/\text{min}$	1
History and comorbidities	
Melaena	1
Syncope	2
Hepatic disease ¹	2
Cardiac failure ²	2

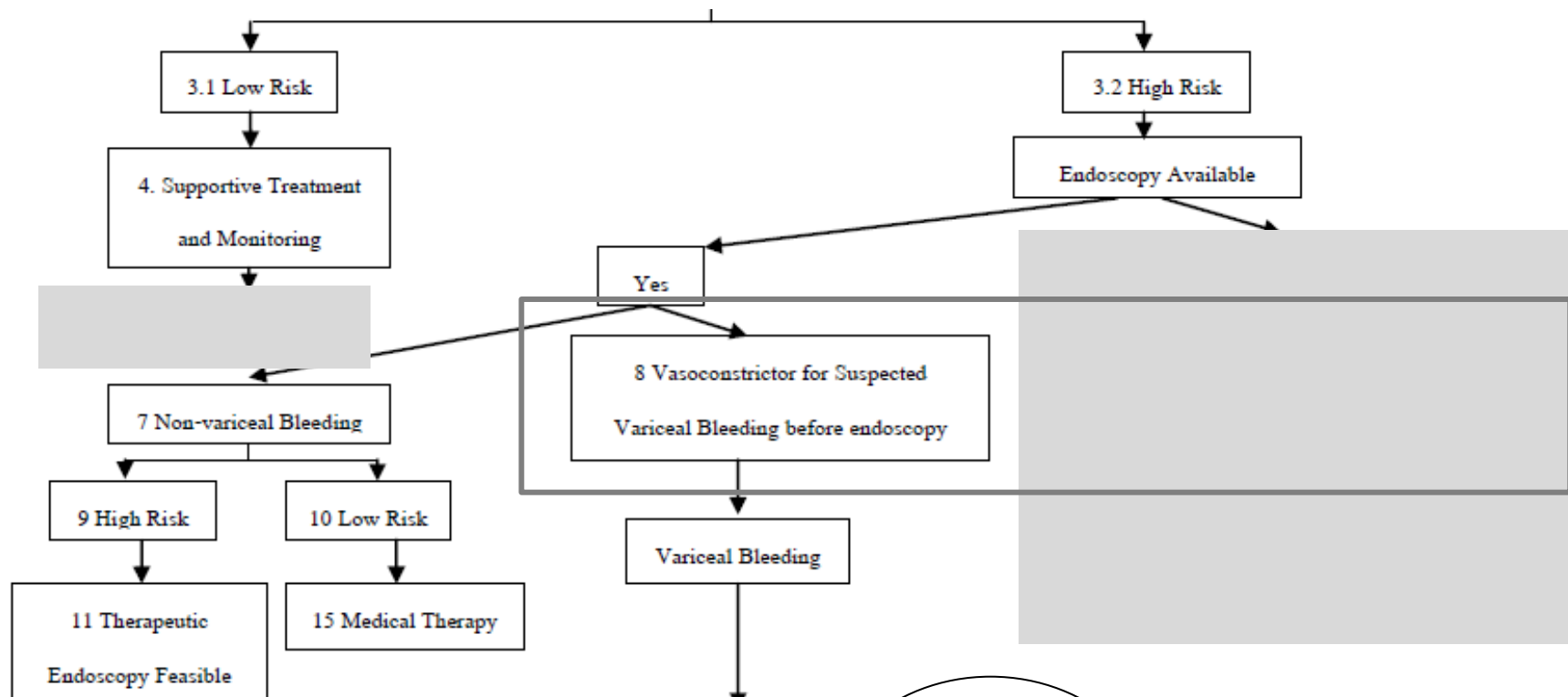
T-score

Score	1	2	3
Variable			
General conditions	Poor	Intermediate	Good
Pulse (beats/min)	> 110	90-110	< 90
Systolic blood pressure (mmHg)	< 90	90-110	> 110
Haemoglobin levels (g/dL)	≤ 8	9-10	> 10

Kampangphet

Predictors	Category	OR	95% CI	P-value	Coefficient*	Score
Age (year)	≥ 60	1.57	1.13 - 2.18	0.007	0.45	1
	< 60	1.00	ref			0
Pulse (/min)	≥ 100	1.56	1.11 - 2.19	0.011	0.44	1
	< 100	1.00	ref			0
Systolic pressure (mmHg)	< 100	97.49	54.86 - 173.25	< 0.001	4.58	10.5
	≥ 100	1.00	ref			0
Hemoglobin (g/dL)	< 10	15.00	10.48 - 21.46	< 0.001	2.71	6
	≥ 10	1.00	ref			0
BUN (mg/dL)	≥ 35	2.22	1.57 - 3.14	< 0.001	0.80	2
	< 35	1.00	Ref			0
Cirrhosis	yes	2.55	1.58 - 4.14	< 0.001	0.94	2
	no	1.00	Ref			0
Hepatic failure	yes	8.12	1.66 - 39.67	0.010	2.09	4.5
	no	1.00	ref			0

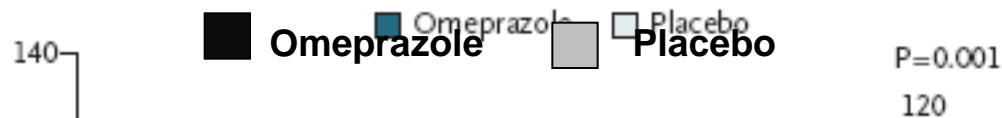
*Coefficients from multivariable continuation ratio logistic regression. OR: odds ratio; CI: confidence interval; ref: reference category; BUN: blood urea nitrogen.



Sign of PT

ORIGINAL ARTICLE

Omeprazole before Endoscopy in Patients with Gastrointestinal Bleeding



Need for Down-staging of bleeding stigmata

■ 19.1% VS □ 28.4% (P=0.007)

Recurrent bleeding rate

■ 3.5% VS □ 2.5% (P=0.49)

Actively bleeding peptic ulcer Ulcer with nonbleeding visible vessels Clot Flat, pigmented spots Ulcer with clean base

Type of Ulcer



Proton pump inhibitor treatment initiated prior to endoscopic diagnosis in upper gastrointestinal bleeding

Six RCTs comprising 2223 participants.

mortality rates: 6.1% and 5.5% respectively (odds ratio (OR) 1.12; 95% CI 0.72 to 1.73).

rebleeding rates: 13.9% and 16.6% respectively (OR 0.81; 95% CI 0.61 to 1.09).

Surgery: 9.9% and 10.2% respectively (OR 0.96 95% CI 0.68 to 1.35).

reduce of participants with SRH at index endoscopy: 37.2% and 46.5% respectively (OR 0.67; 95% CI 0.54 to 0.84).

reduced endoscopic therapy at index endoscopy: 8.6% and 11.7% respectively (OR 0.68; 95% CI 0.50 to 0.93).

IV PPI (omeprazole) in patients with PUB

88 bleeding peptic ulcer patients who had obtained initial hemostasis with endoscopic therapy were enrolled in this study.

40 mg of omeprazole was given as intravenous bolus followed by 40 mg intravenously every 6 h for 3 days. Thereafter, omeprazole was given 20 mg orally once daily for 2 months.

The intragastric pH was recorded for 24 hours after the first dose of omeprazole.

The occurrence of rebleeding was observed for 14 days.

RESULTS: The mean intragastric pH value of these 88 patients was 6.07, (95% CI: 5.91-6.23). Four patients (5%) were found to have omeprazole resistance (pH < 4.0, 50% of the time). By the 3rd days after entering the study, more patients with a mean pH < 6 rebled (5/25 vs. 3/63, $p < 0.05$).

CONCLUSIONS: About five percent of patients with peptic ulcer bleeding respond poorly to intravenous omeprazole. Rebleeding rate is higher in patients with a mean intragastric pH of less than 6.

Emergency Sclerotherapy VS Vasoactive Drugs

for variceal bleeding in cirrhosis: A Cochrane Meta-Analysis

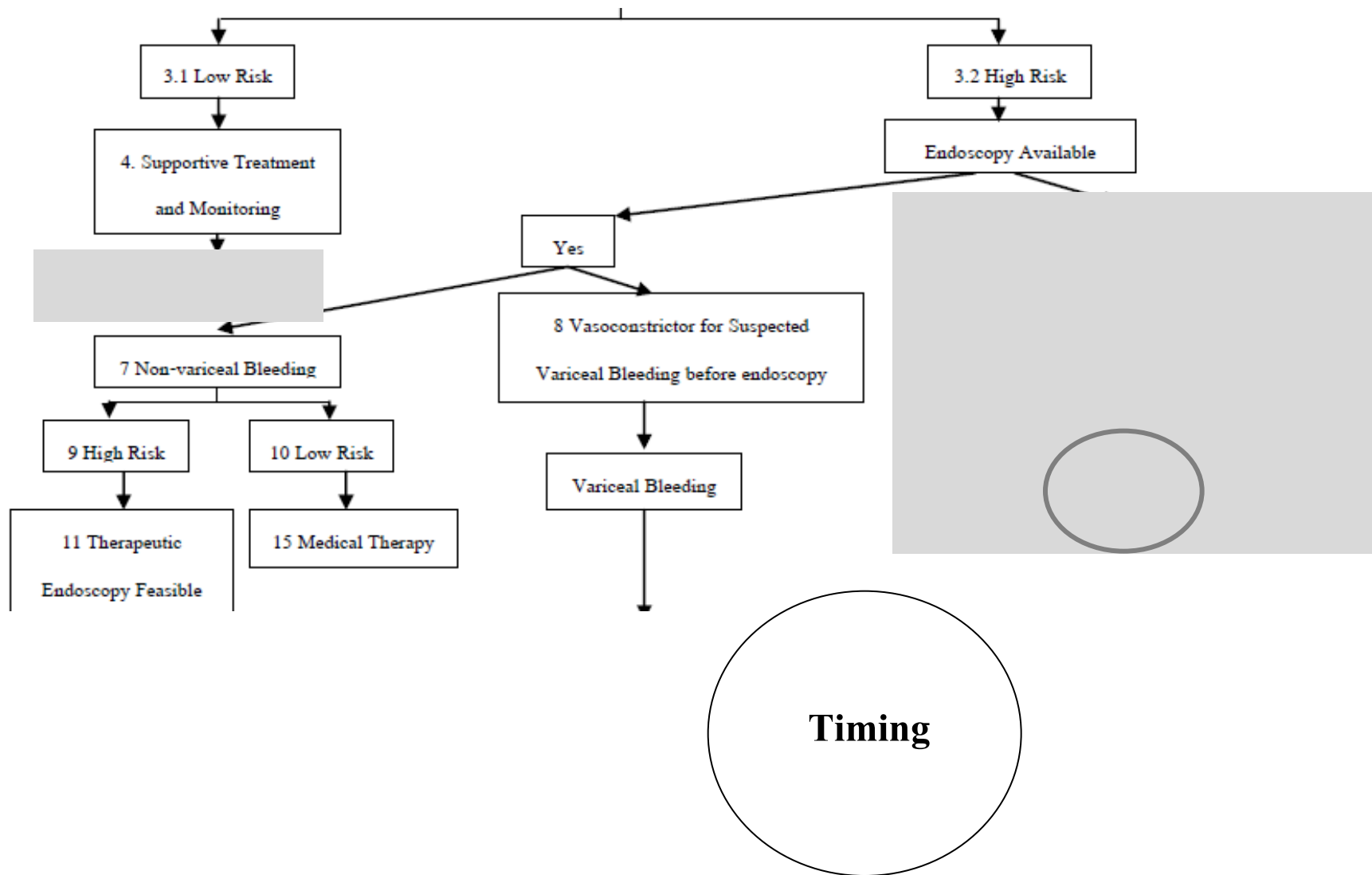
Medline 1968-2002, EMBASE 1986-2002, Cochrane Library 2002,4

Sclerotherapy vs Vasopression (+/- nitroglycerine)-1,

Teripressin-1, Somatostatin-5, Octreotide-8

15 RCT

Conclusion: Emergency EVS is not supported as the first-line treatment when compared with vasoactive drugs, which control bleeding in 83%



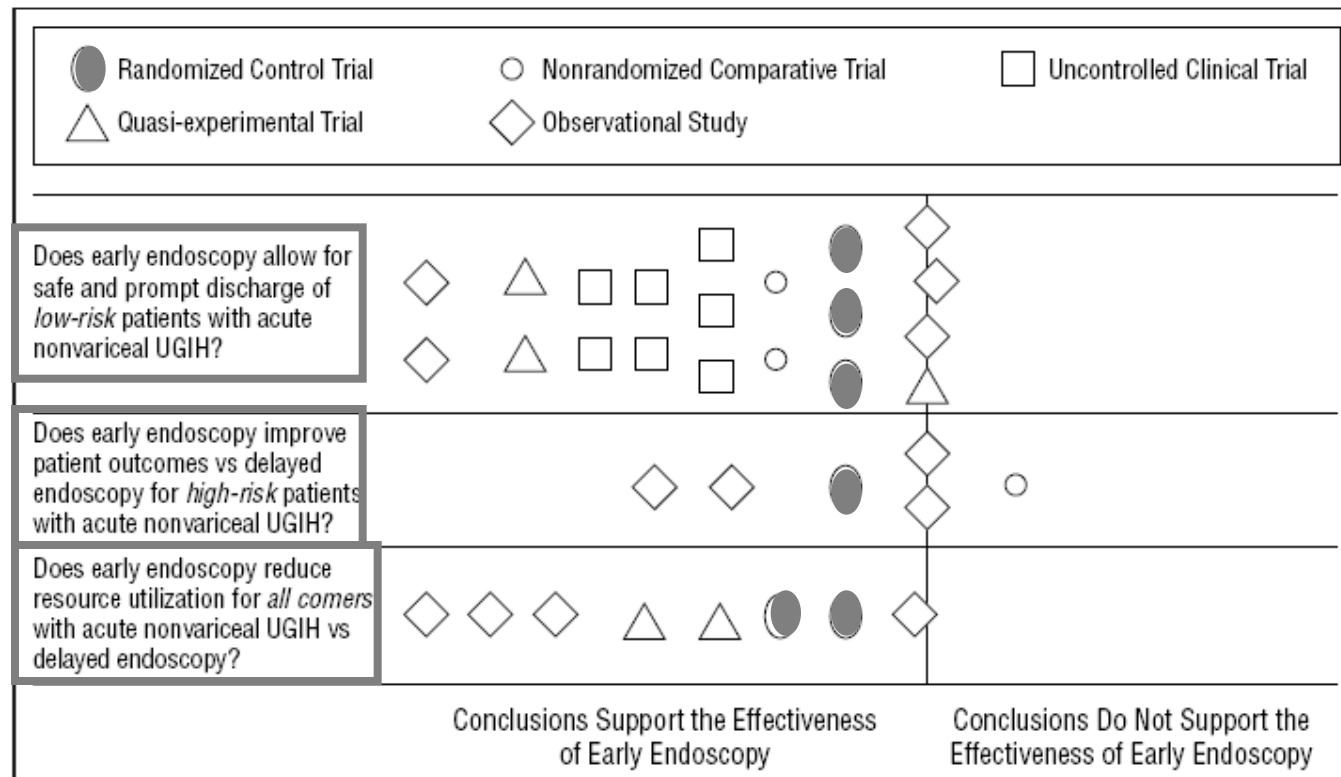
Endoscopy for Acute Nonvariceal Upper Gastrointestinal Tract Hemorrhage: Is Sooner Better?

A Systematic Review

Arch Intern Med. 2001;161:1393-1404

Brennan M. R. Spiegel, MD; Nimish B. Vakil, MD; Joshua J. Ofman, MD, MSHS

From 1980-2000/ 23 studies

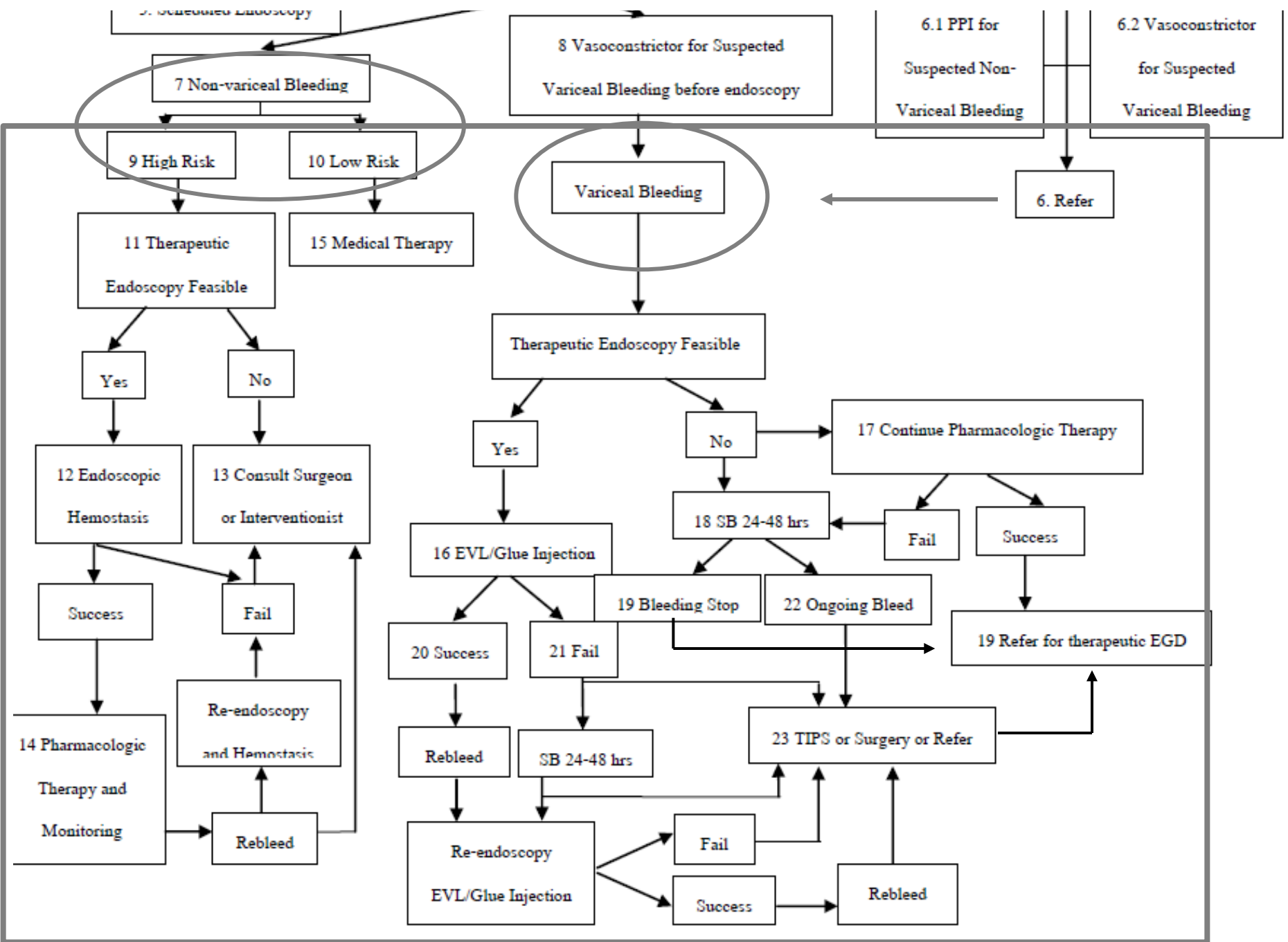


Endoscopy: Timing

Authors	Category	Timing	Outcome
Lee	variceal bleed	<12 hr. vs after	less Bl.Tx, HS, Mortality
Lee	Non-variceal	1-2 hr. vs 1-2 D	Less HS, Cost (early D/C)
Schacher	Peptic bleed	immediate vs 24 hr	NS: Re-bleed, Sx.,Morbidity, HS
Bjorkman	Non-variceal	<6 hr vs 6-48 hr	NS: Re-bleed, Sx, MM, HS, Bl Tx.
Targownik	Non-variceal	<6 hr vs 6-24 hr	NS: Re-bleed, Sx. MM, Bl Tx.,HS
Tai	Non-variceal	< 8hr. vs 8-24 hr	NS: Re-bleed, Sx, MM, HS More active lesion-more EndoTx.
Lin	Peptic bleed	< 12hr. vs >12 hr	Less Bl Tx., Less HS
Cooper	UGIB	24 hr. vs after	Less HS, Less Re-bleed, Less Sx.

Lee JG .Nature Clinical Practice Gastroenterology & Hepatology,2006; 3, 534-535.
 Lee JG, et al. GIE 1999;50:755
 Schacher GM, et al. Endoscopy 2005;37:324-8
 Bjorkman DJ, et al. GIEv 2004;60:1-8

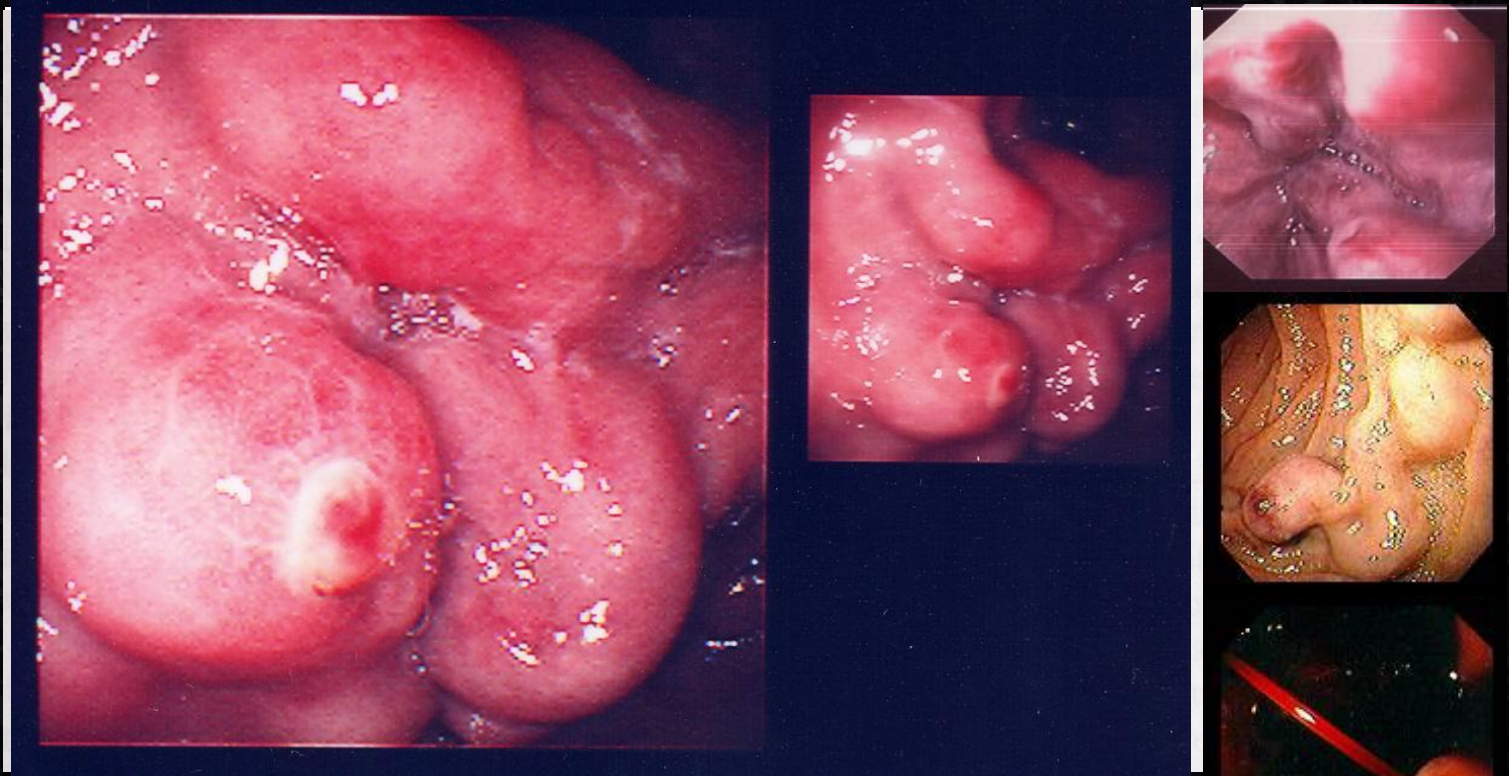
Targownik LE, et al. Can J Gastroenterol 2007;21:425-429
 Tai CM. et al. Am J Emerg Med. 2007;25:273-8
 Cooper GS, et al. GIE 1999;45:145-52
 Lin HU, et al.Clin Gastroenterol 1996;22:267-71



Variceal Bleeding: How to control

- **Get target**
 - **Good technique**
 - **Stricture on protocol**
 - **Close F/U high risk group
(STOP drinking!)**
 - **SB tube for save life**
 - **FCMS is good option for EV bleeding
(if you fail.)**
 - **Donot delay operation if needed.**
-
- **Consider TIPS & Transplant**
 - **Back to consider ADVANCED ENDO.**

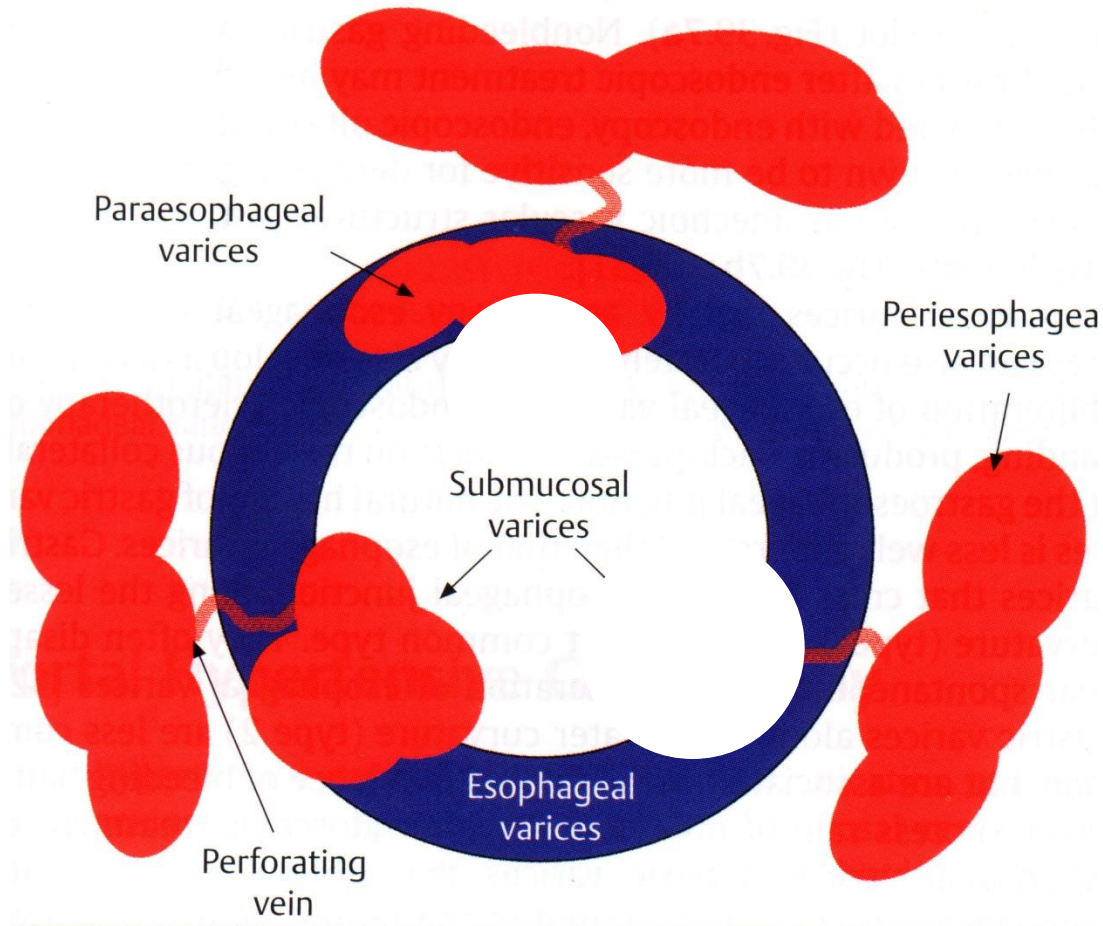
Variceal Bleeding



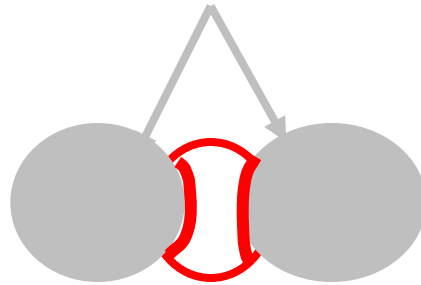
White nipple sign
Clot adherent

Red color signs:
Red wale marking, Cherry-red spot,
Hematocystic spot, Diffuse redness

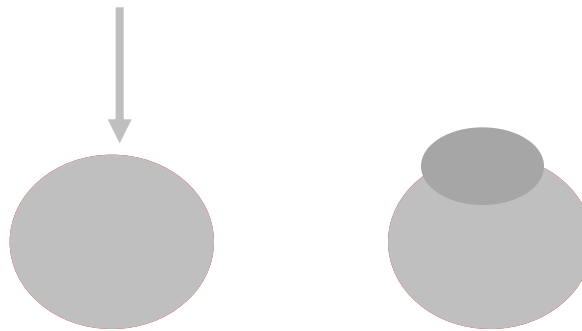
Technique of Rubber Band Ligation to minimize recurrent



Technique of Sclerotherapy



Paravariceal injection

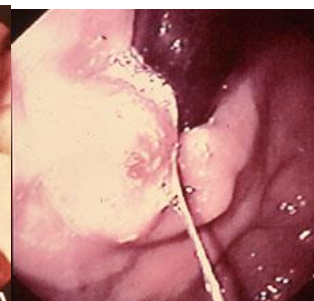
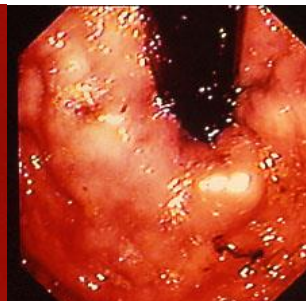
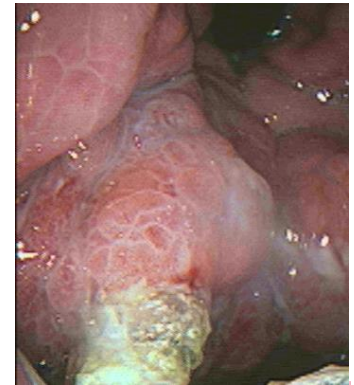


Intravariceal injection

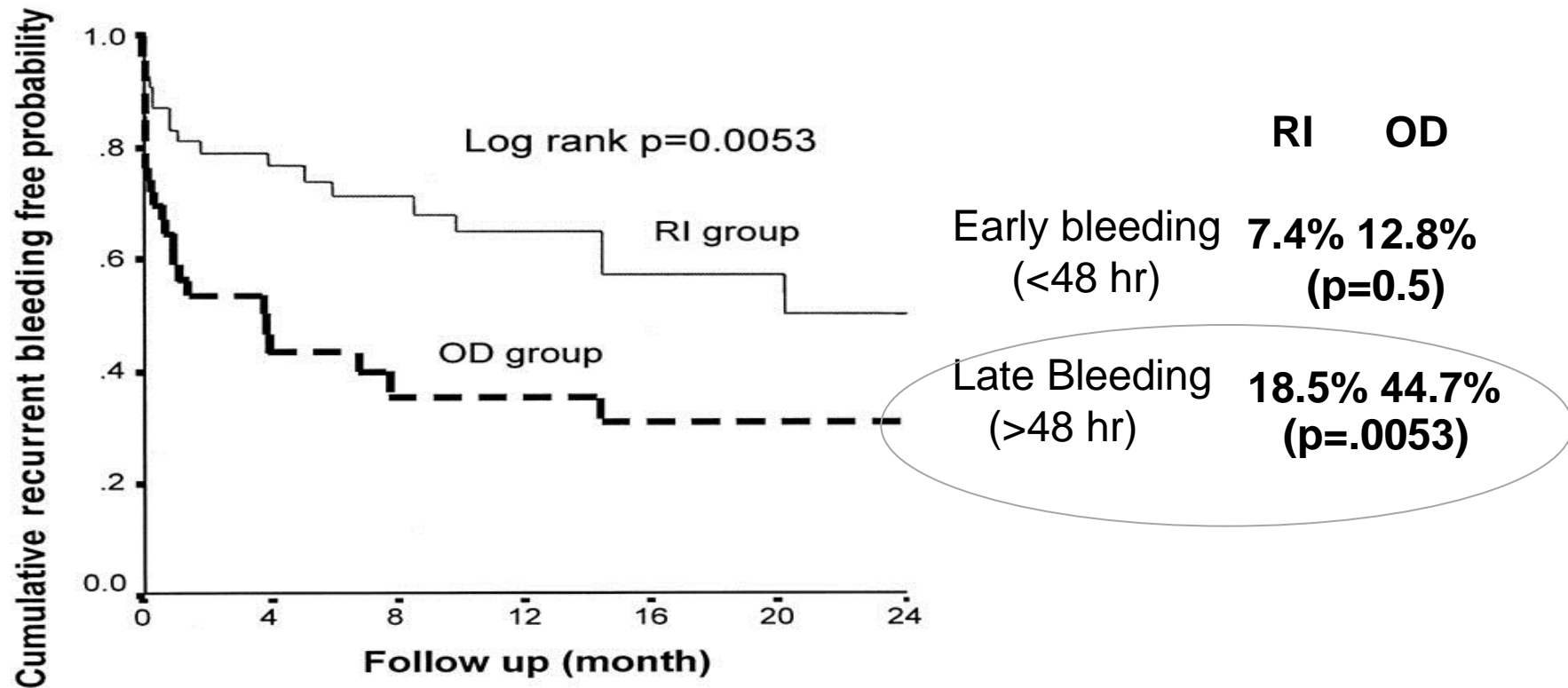
Technique of Glue injection

(N-butyl-2-cyanoacrylate; 2-octyl-cyanoacrylate)

- Coated catheter with Distill water
- Using Histoacry
- Intravariceal injection(0.5ml-esophageal, 1.0ml-gastric)
- Following injection with distilled water (at least 1.8 ml)
- Withdraw needle then inject distilled water (2 ml)
(Endoscope should be careful)
- End-point: Volcano-like, engorged varices-harden



Injection protocol: Repeated or On-demand



Risk Factor For Recurrent Hemorrhage From Esophageal Varices

Early Rebleeding(<6 wk)

Age>60

Ascites

Severity of initial bleed

Renal failure,

Platelet clot on varices

Active bleeding on endoscopy

Red signs

Late Rebleeding(>6 wk)

Severity of liver failure

Ascites

Hepatoma

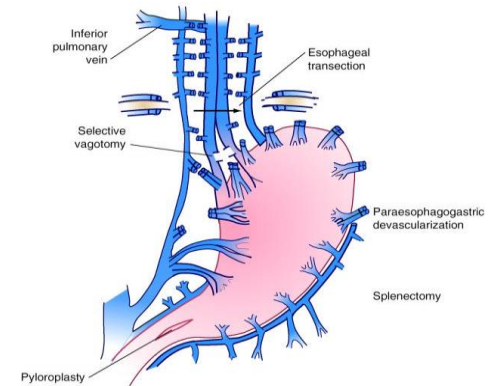
Active alcoholism

Red signs

Surgical perspective

Bleeding esophageal varices

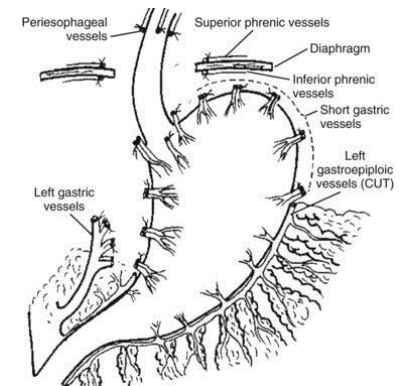
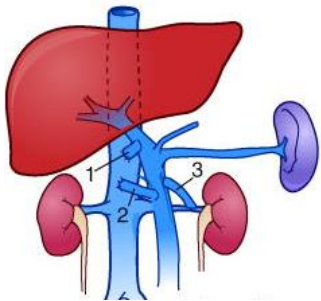
- Suture bleeding point
- Devascularization
- Splenectomy
- Esophageal transection
- Non-selective shunt



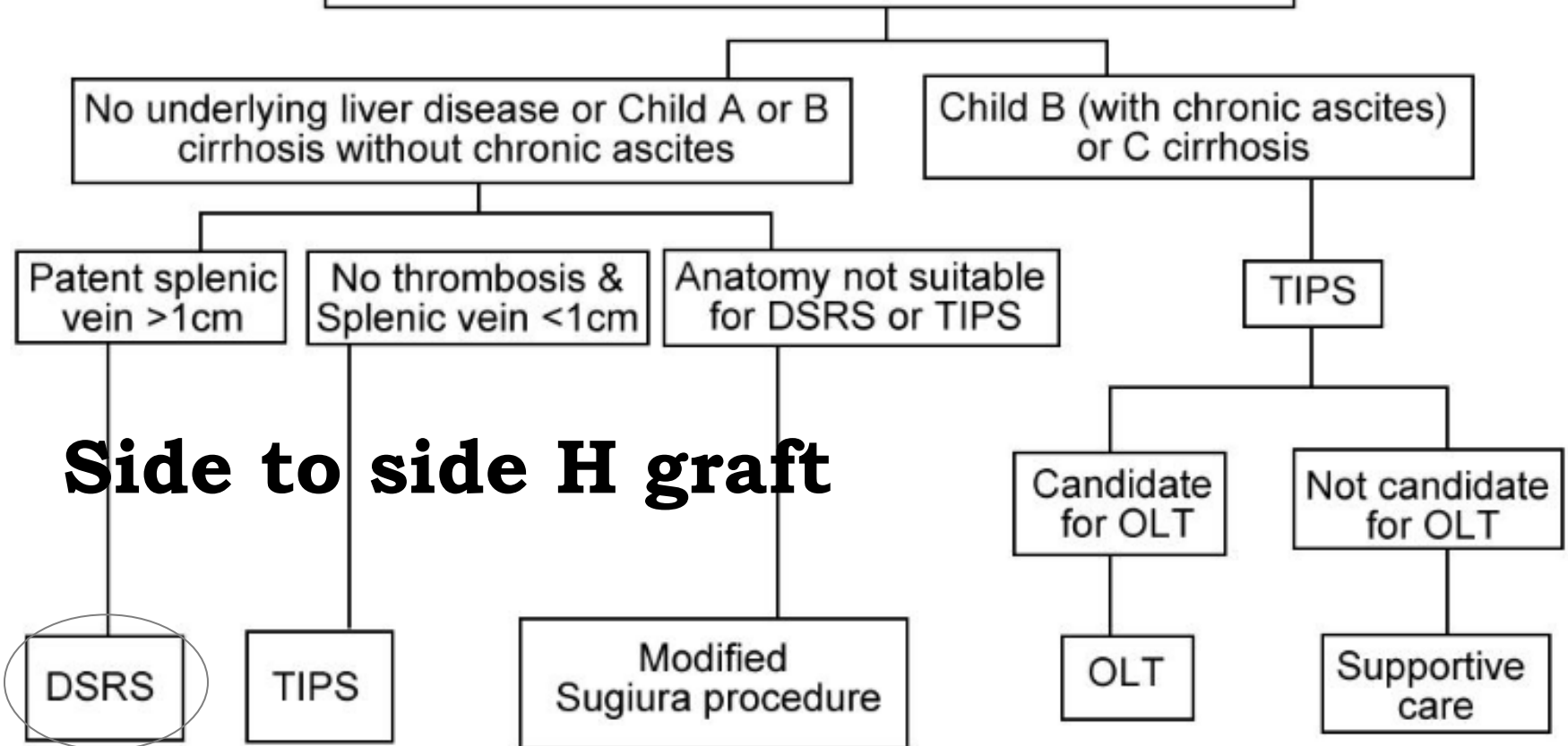
Side to side portacaval shunt-H graft

Bleeding gastric varices

- Suture bleeding point
- Hassab's operation

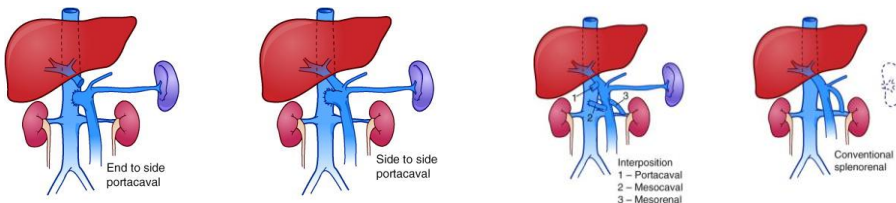


Variceal bleeding refractory to medical treatment

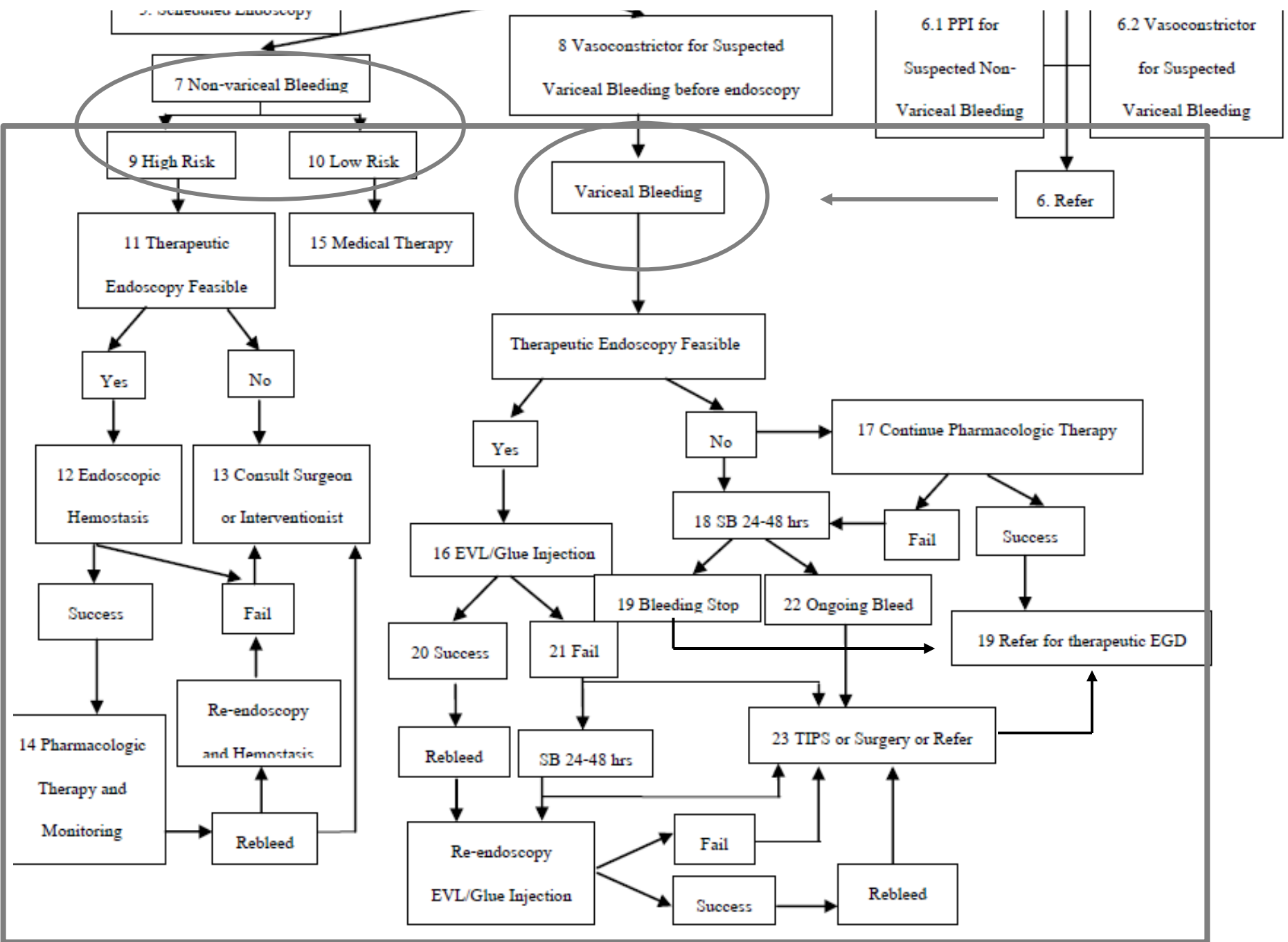


Side to side H graft

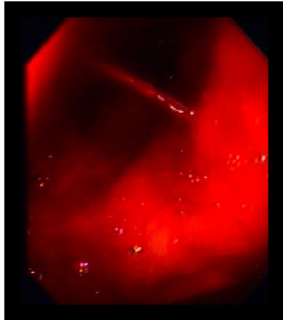
TIPS- Transhepatic proto-systemic shunt
OLT- Orthotopic liver transplantations
DSRS- Distal splenorenal shunt



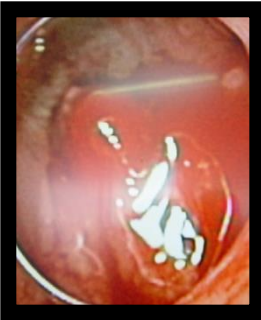
Courtesy: Dr. Nicholas Sikalas



Endoscopic Rx. guideline



Forrest I a



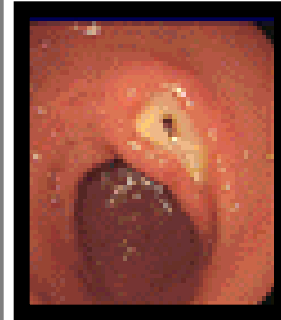
Forrest I b



Forrest II a



Forrest II b



Forrest II c



Forrest III

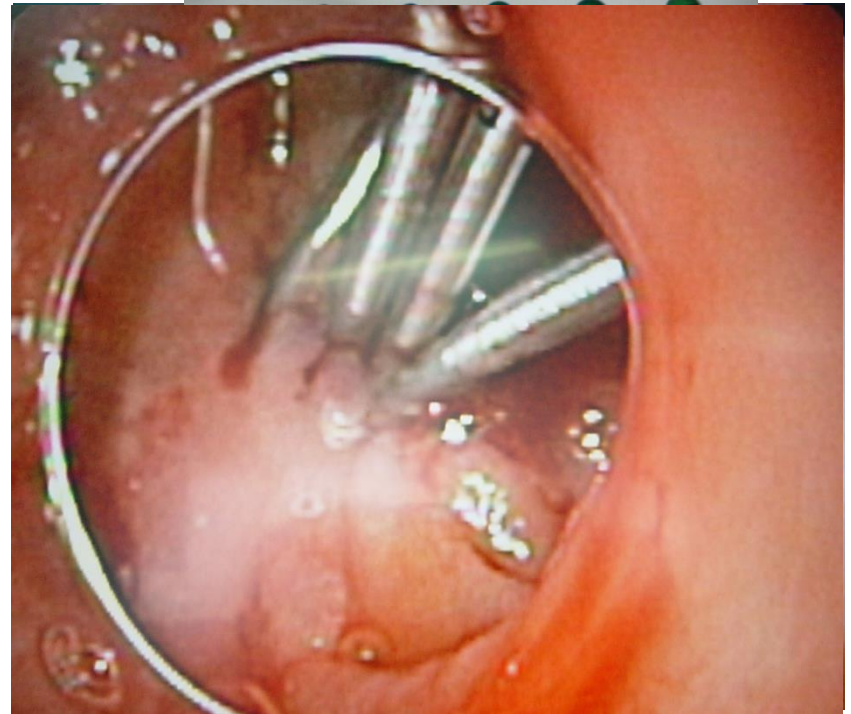
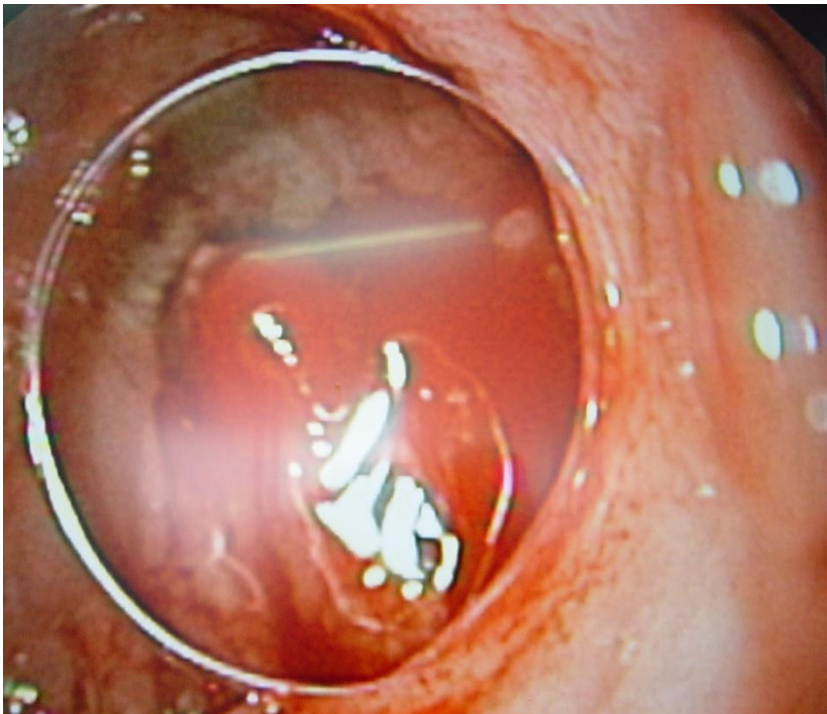
IV PPI
Endoscopic Rx.

Oral PPI
No endoscopic Rx.

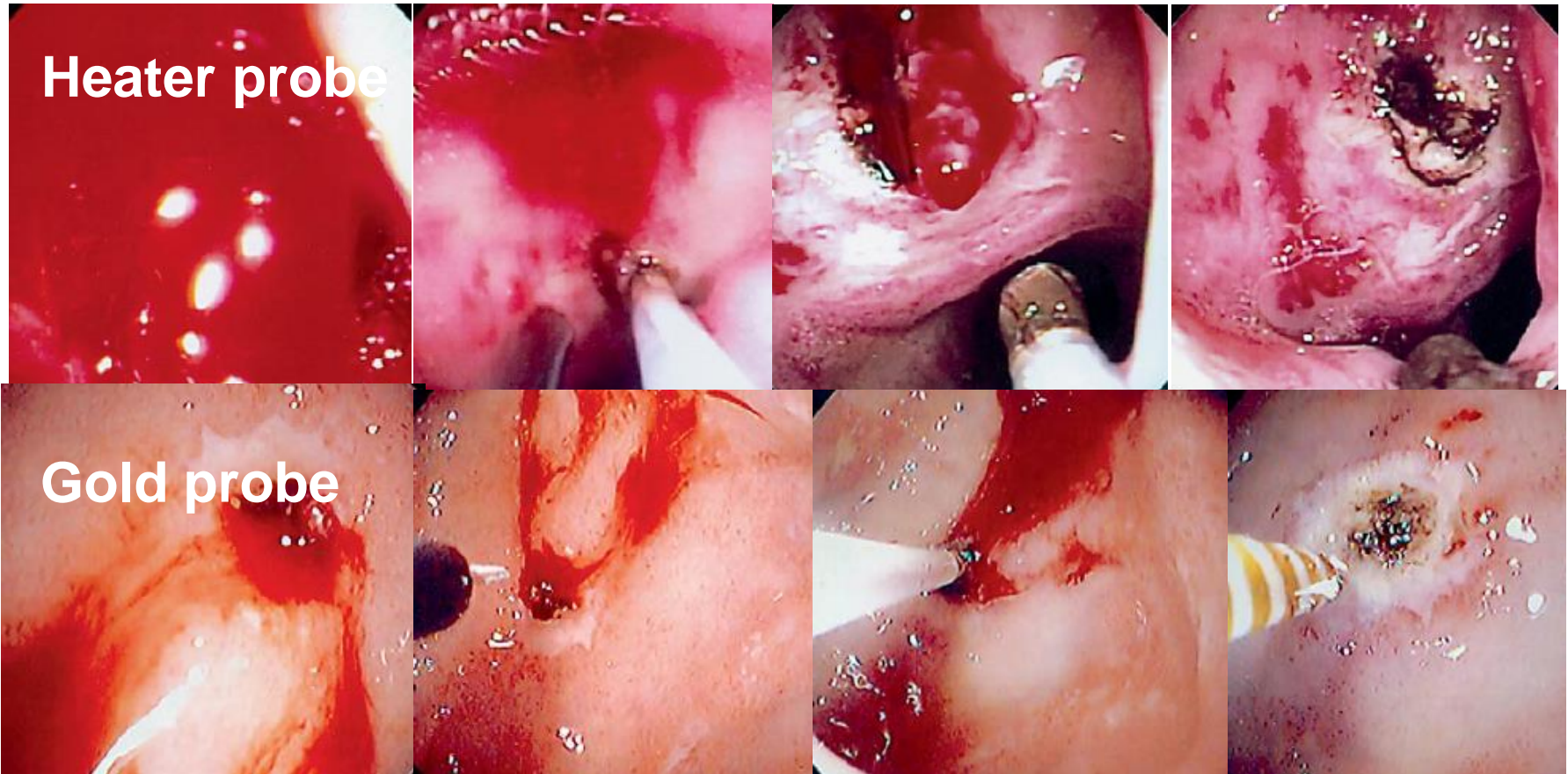
Peptic Bleeding: How to control

- **Good selection in technique**
 - * **fibrotic scar with NBVV**
 - * **Large VV**
- **Consider ADVANCED ENDO.**
- **Close F/U high risk group.**
- **Find IR if indicated.**
- **Donot delay operation if needed.**

Hemoclip & Cap



Contact Coagulation



End point: only cavitation

Remove probe after irrigation/ Becareful repeat Rx.

Pulse 1,20-40w

APC *Argon Plasma Coagulation*

89 PUB (Forrest Ia,Ib,Ila)

Adrenalin injection (Forrest I)

APC
53

bipolar probe
36

Primary haemostasis(%) **91**

81

n.s.

Mortality(%) **3.8**

8.3

Rockall score>5

Primary haemostasis(%) **85**

50

P=0.02

Mortality(%) **7**

21

Glue (Cyanoacrylate)

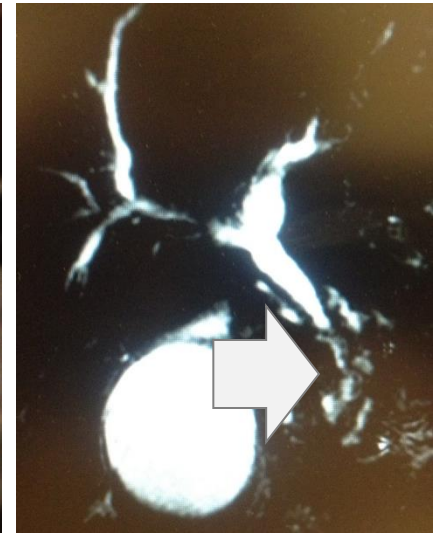
**Gastroduodenal Bleeding
(fail endo Rx. or early rebleeding)**

**intralesional injection of adrenaline
plus undiluted cyanoacrylate**

Haemostasis 17/18

Surgery 1/18

Severe complication after histoacryl injection for bleeding gastric ulcer.



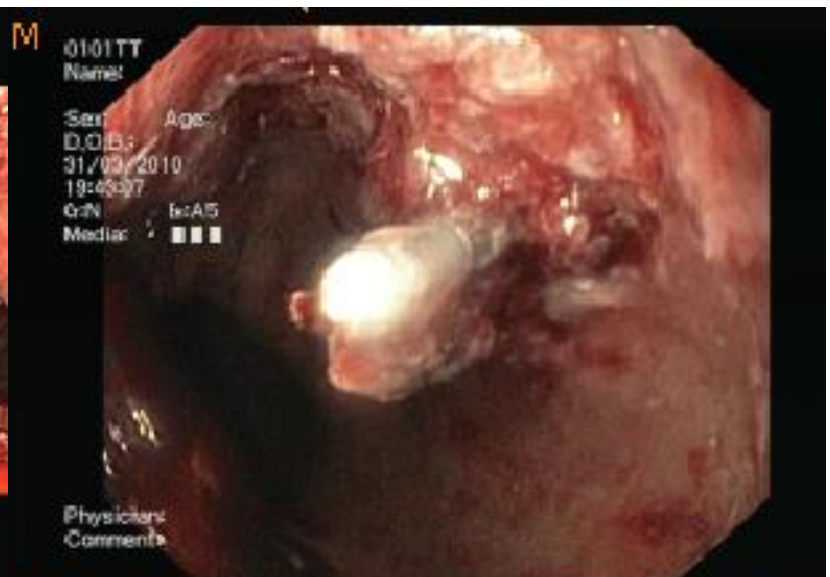
Glue spray (hemospray)



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07:04:58



31/03/2010
13:27:04

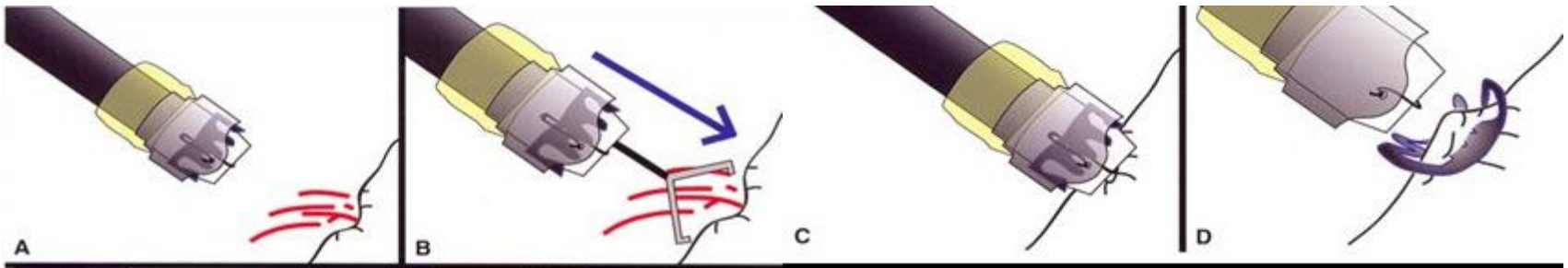


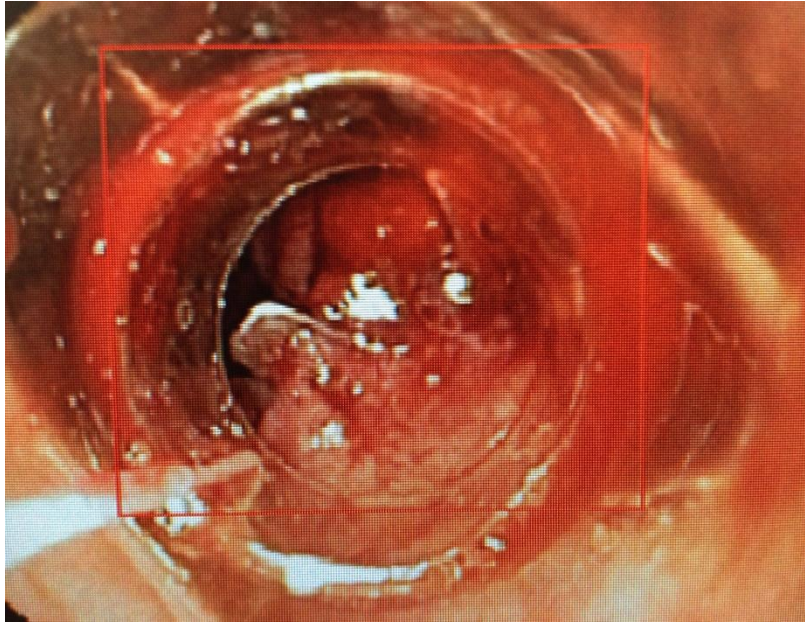
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Over-The -Scope-Clip (OTSC)

"New techniques to treat UGI bleeding"

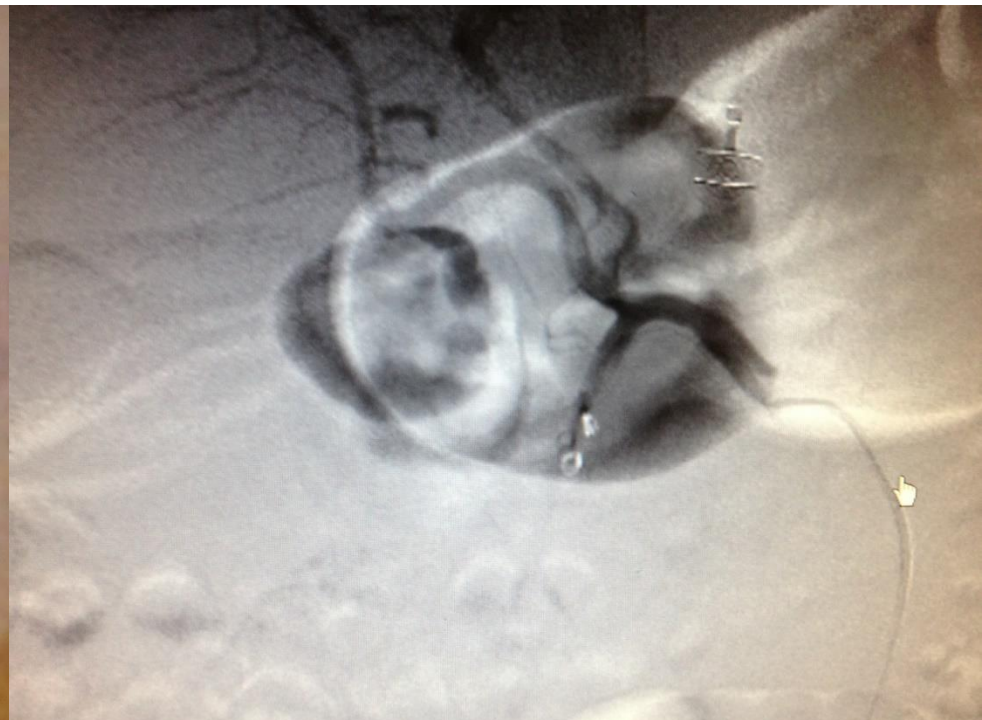
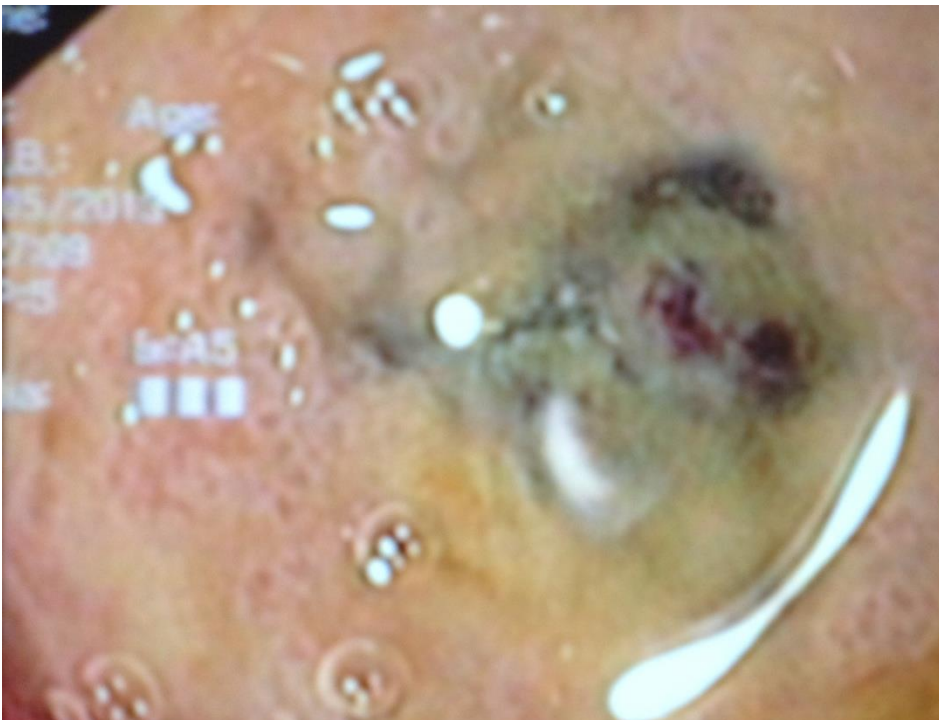




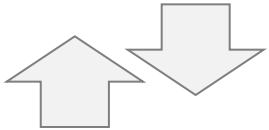
Predictors of Rebleeding after endoscopic therapy for bleeding ulcer

Risk Factor	Saeed	Brullet	Lau	Wong	Choudari
Age	Yes	No	No	No	No
Co-morbid	Yes	No	No	No	No
Pre-treatment stigmata	Yes	No	No	Yes	Yes
Shock	-	Yes	Yes	Yes	Yes
Posterior bulb ulcer	Yes	No	No	No	Yes
Large ulcer size	-	Yes	Yes	Yes	-

More aggressive approach



A comparison of angiographic embolization with surgery after failed endoscopic hemostasis to bleeding peptic ulcers

	TAE 32		Surgery 56
Recurrent Bleeding	11(34.4%)		7 (12.5%),p=.01
Complication	40.6%		67.9%, p=.01
Mortality	25%		30.4%, p=.77
Hospital stay	17.3 d.		21.6 d. p=.09
Transfusion	15.6 u.		14.2 u. p=.60

Dual vesseles is considered

Active extravasation was seen in 15 patients (46.9%)

NOTE: retrospective study

Surgical perspective

Duodenal ulcer

Truncal vagotomy(TV) + Antrectomy(+ulcer) + BI or BII

(good surgical risk, simple ulcer-D1, experienced surgeon)

Suture bleeding point + TV + Pyloroplasty

(rebleeding same as above-Grade B evidence)

Gastric ulcer

Partial gastrectomy (ulcer) + BI or BII

(good surgical risk, low lying ulcer, experienced surgeon)

Excision ulcer/ Suture bleeding point + TV + Pyloroplasty

(poor surgical risk, high lying ulcer- Grade C evidence)



Excerpta Medica

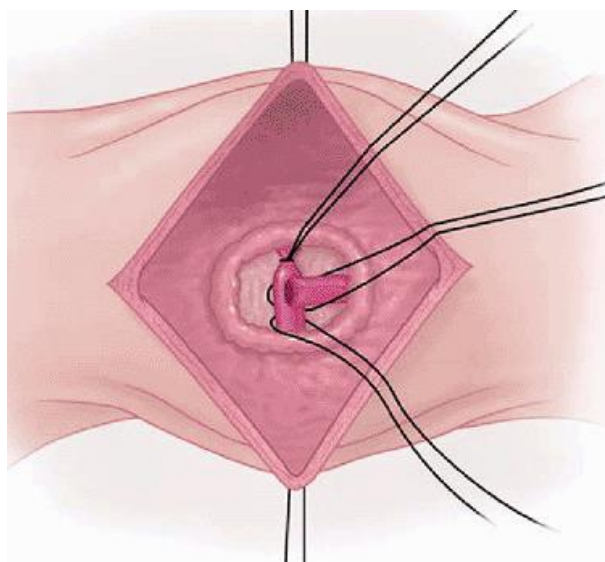
The American
Journal of Surgery

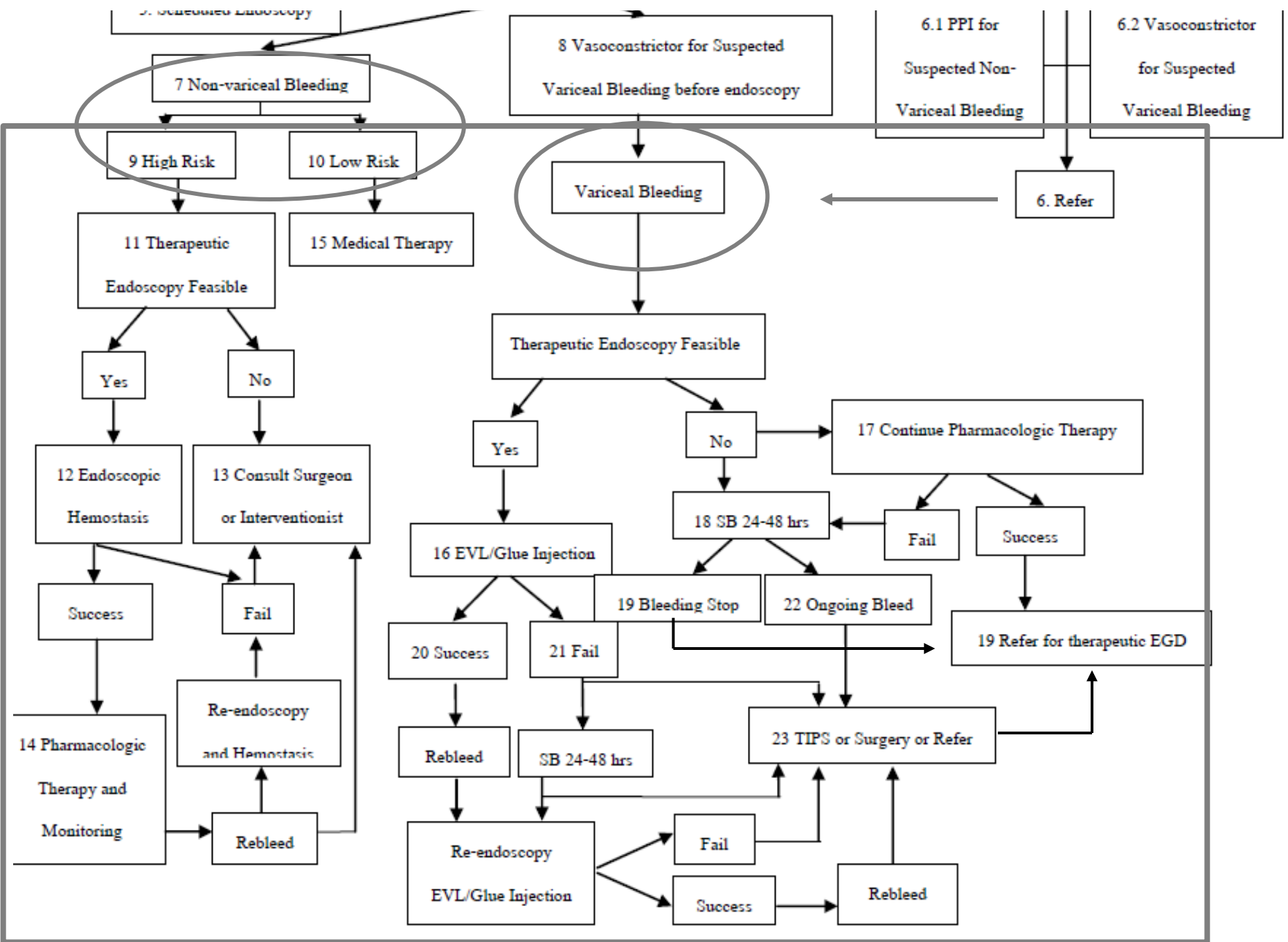
The American Journal of Surgery 190 (2005) 775–779
Paper

Surgical therapy of peptic ulcers in the 21st century: more common than you think

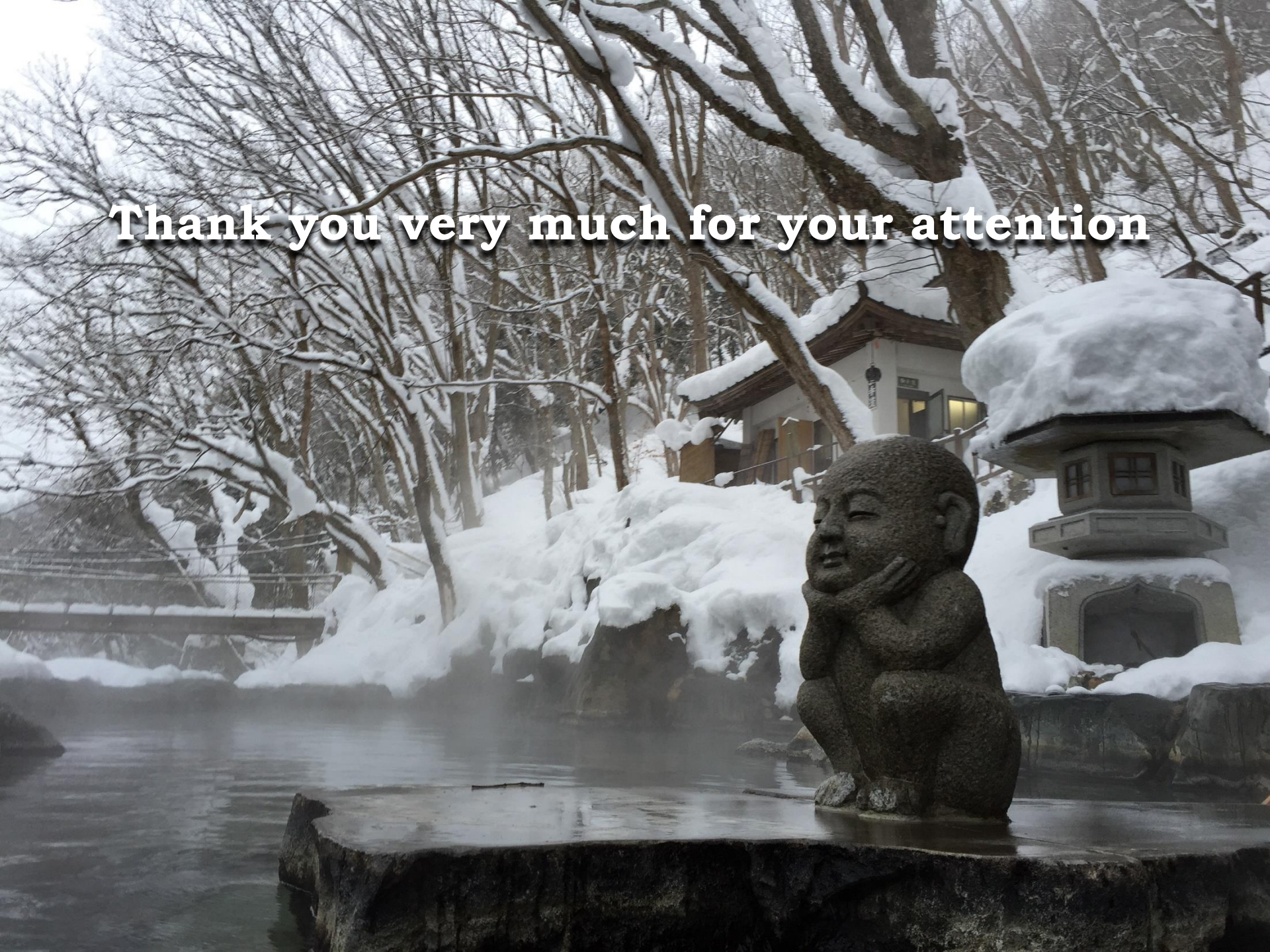
George A. Sarosi, Jr., M.D.*, Kshama R. Jaiswal, M.D., Fiemu E. Nwariaku, M.D.,
Massiamo Asolati, M.D., Jason B. Fleming, M.D., Thomas Anthony, M.D.

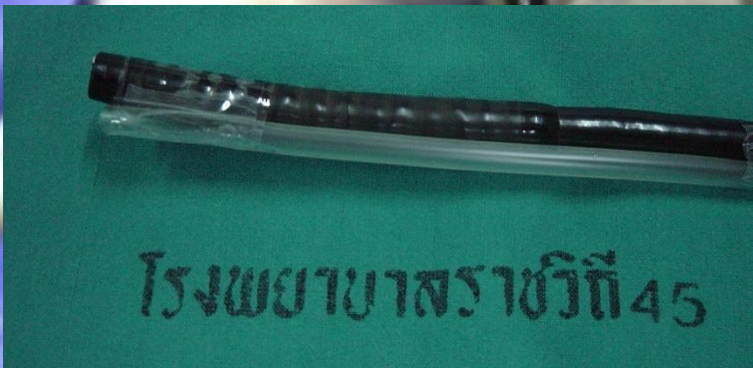
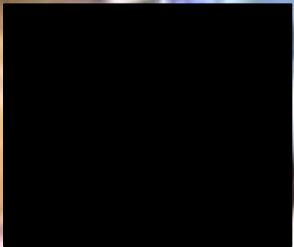
“Only 36% underwent definitive surgery”





Thank you very much for your attention







Water Irrigation



accessory channel



Irrigation
channel

