

⇒ In Gaza 15-20 case / week
and increase by winter why?
↳ use of NSAIDs is increase

Upper GI Bleeding :-

↳ Is the bleeding that being Proximal to
(ligament of Treitz.)

(Junction between duodenojejunal junction and
Rt Crus of diaphragm)

UGIB

Variceal

Non Variceal

• each of them has different etiology +
different mode of treatment.

① Variceal UGIB:

① ↳ MCC is portal HTN which cause
esophageal / gastric varices → ~~and~~ (Due to ^{liver} cirrhosis)

* Portal HTN Causes

cirrhosis

non-cirrhotic (NCPH) ^{world wide}

MCC is: schistosomiasis

(البلهارسيا)

Manifestations of Portal HTN??

Splenomegaly / Ascities / Hepatic encephalopathy
Bleeding from varices.

Mechanism of Portal HTN:

Pathological elevation of Portal venous Pressure, which defined as $\uparrow$ Hepatic venous pressure gradient (HVPG) > 6

(Pressure gradient between portal vein & IVC)

[Normal HVPG 1-5] mmHg

[Normal Portal vein Pressure 5-10 mmHg]

HVPG > 10 mmHg clinically significant.

> 12 mmHg Associated with complications.

$\rightarrow \uparrow$ Portal venous pressure $\Rightarrow$ Resulting from obstructions in Portal blood flow or $\uparrow$ Blood flow ~~resistance~~ resistance. which may be:

- $\rightarrow$ Pre hepatic: Portal vein thrombosis.
- $\rightarrow$ Hepatic: liver cirrhosis.
- $\rightarrow$ Post hepatic: Rt side HF.

= this leads to subsequent backflow to portosystemic anastomosis (collaterals) Varices $\rightarrow$ Stomach.

Esophagus $\leftarrow$ Varices $\leftarrow$ Paraumbilical $\leftarrow$ Rectal
gastric
esophageal
ectopic

مقام، بالنسبة لمريض ال variceal UGIB، مفرح
مقل يجرى المريض شئ؟؟

① vomiting of blood.

↳ Fresh blood.

↳ Coffee ground vomiting.

② Melena: Black ^{لرنية} tarry ^{bad odor} offensive difficult
Flush away.

• DDX. (؟) Melena هو black stool كل هذا

No, Some drugs may cause black stool as:

1) Iron supplement

2) Bismuth

3) B Complex (vitamins)

4) Foods (High content of iron)

+ بعض الأدوية التي يتناولها (فيهم).

• Mechanism التي يتسبب بها (؟) Melena

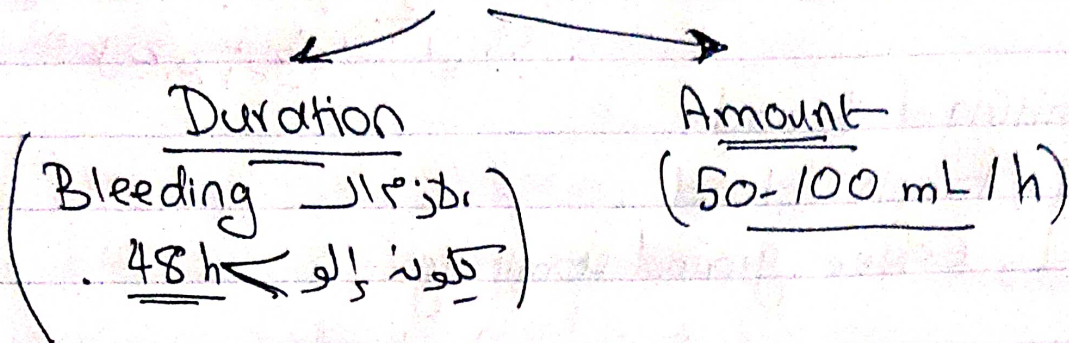
① GI Bleeding → Hgb in RBCs have a substance
called Protoporphyrinogen.

② Bacteria in GI tract causing transformation
of Protoporphyrinogen into hematin (characteristic to
Melena)

أهم، في هذا الزوجية.
as: drug ← قد يتسبب

3. Acute intermittent Porphyria

∴ Melena ← نزول الدم من أعلى



③ Hematochezia ⇒ نزول الدم من أسفل LGIB
من نزول الدم من أعلى UGIB
Massive bleeding
(> 1000 mL/d)

Note ∴

⇒ [Hemodynamic Hematochezia]
↓ Instability +
• tachycardia = UGIB
(arrhythmia) • نزول الدم من أعلى
• low BP
• orthostatic changes

50% of cirrhotic patients have UGIB.

* Bleeding of varices (depends on)
↓
Severity of liver disease Size red color
Sign
↳ worst site.

Hypotension
↓
~30% Blood loss

early sign of Hypovolemia is tachycardia and some say that it's orthostasis

Management / Treatment :

- ① check ABC + vital signs.
(Airway, breathing, circulation)
- ② 2 large bore IV cannula. why? Fluid
↓
Blood
(Case deterioration may be sudden),
For resuscitation.
- ③ Take blood sample and checking for:
a) CBC b) Blood Cross match.
c) LFT d) RFT e) Coagulation test
(PT / INR)

Note :

- ① each unit of Packed RBCs Have 1g Hgb.
- ② I have to examine for orthostatic Hypotension (early sign of Hypovolemia), which may deteriorate into shock.
- ③ Target Hgb (7-9)
- ④ Any patient with (Hgb < 7) in variceal UGIB, I have to do blood transfusion in General.
- ⑤ if patient have HF or Cardiac diseases
~~I have to~~ Target Hgb (8-9)
 - May deteriorate Portal HTN + ascites now
 - HF exacerbated by Anemia.

Risk of Bleeding ← تكون خثر ← Fluids + blood
(liver cirrhosis)

نقل الدم / Fluid + stable ← Trelopressin + octreotide
unstable

4) IF INR = 1.6 - 1.7

هذا يعني FFB ، تكون خثر ، تكون خثر ، تكون خثر
For correct clotting.

تكون خثر ، تكون خثر ، تكون خثر ، تكون خثر
plasma ، Volume overload ، تكون خثر ، تكون خثر
(Portal HTN) deteriorate
(variceal rupture) ← تكون خثر ، تكون خثر

5) Platelets ، تكون خثر ، تكون خثر ، تكون خثر
50000 + there is bleeding.
ولو كانت في bleeding ، تكون خثر ، تكون خثر ، تكون خثر
كانت أقل من 10-20 ألف.

6) Antibiotics → ↓ Mortality.
Why? → 3rd generation cephalosporins : cefixime
لأنه تكون خثر ، تكون خثر ، تكون خثر ، تكون خثر
(Ig) ، تكون خثر ، تكون خثر ، تكون خثر
risk ← infections ، تكون خثر ، تكون خثر
(endocarditis) ، تكون خثر ، تكون خثر
SBP ، تكون خثر

↳ Opsonization of bacteria is decrease.

↳ Its given for (1 week)

hemodynamic stability is needed Prior the endoscope → (Vaso Pressor) / Antibiotics ، تكون خثر ، تكون خثر

* Another use is in HRS.

.. (Mortality benefit) ← هو الموت والحد من

7) Vasopressor (for 5 days)
 vasopressin analog:
 (or) Trelipresin
 Somatostatin analog:
 Octreotide

8) Endoscope:
 within (12 h)
 ↳ Sclerotherapy.

.. complication systemic ←
 ↳ Band ligation. (endoscopic rubber band ligation)

9) Give patient B-blocker ⇒ (life long)
 ↳ (1st attack)
 ↳ After bleeding.
 • Prophylaxis ← (1ry) (Moderate-large varices)
 (2nd ry)

any patient with newly diagnosed with liver cirrhosis. → I have to make endoscope.
 ↳ in 2ndry case.

↳ drug drug interaction with other drugs as (Trelipresin).

.. Antibiotics / Vasopressor / B-blocker

NSBB as: Propranolol (1st choice for 1ry Prophylaxis)

nowadays: They say that the best is

B₁ / B₂ blocker (Carvedilol) → dose ?? Target is
 till H.R decrease to (55-60)
 keep increase the dose
 + α blocker action

Variceal Rebleeding ??

نورس؛ رآغل :-

① ↳ Repeat endoscopy + band ligation.

↓
if there is no effect:

② ↳ induce (TIPS)
(Transjugular Intrahepatic Portosystemic)
shunt.

Portal ↳ hepatic vein د دوسا ؛ (life saving) ←
vein vein

↳ Indication :-

- 1) Refractory Ascities.
- 2) Refractory bleeding.
- 4) Budd Chiari Syndrome.

③ ↳ B-blocker . → { discharge ال وقت }

SS endoscope آغل ال ←

↳ After 2 weeks , to ensure that complete obliteration of varices is occur.

Gastric varices :

- ↳ Larger in size.
- ↳ Higher mortality rate.
- ↳ Pressure is higher of blood.

↳ ما يقرر أن band يكون حجم أكبر من حجم ال band
No indication for sclerotherapy

Also Not used ← Sungestaken tube ←

only in life saving procedure.

- esophageal balloon
 - Aspiration of gastric content
 - Gastric balloon
- tube have 3 ports

↳ Histoacry (glu) ^(injection) → Very adhesive material.
((هي الطريقة الوحيدة تقريباً))

Portal HTN effect on Stomach ??

① Gastric varices.

② Portal HTN gastropathy → B-blockers have effect
appear as : (Snake skin appearance.)

③ Gastroantrovacular ectasia.

↳ (GAV)

↳ Argon plasma

they cause bleeding.

as: linear redness.

Coagulation.

↳ Their treatment differ on varices.

(1 gm) $\leftarrow$ ($\uparrow$ Hgb) $\leftarrow$ blood unit of (500 mL)
 (300 mL) $\leftarrow$ ($\uparrow$ Hct)

② Non-Variceal UGIB :

- ① $\hookrightarrow$ MCC is PUD. $\rightarrow$ Dueto. $\leftarrow$ MCC H. Pylori + NSAIDs use
- ② $\hookrightarrow$ esophagitis / Cancer / Mallory weiss
 Gastritis / Cancer / Ulcer
 duodenitis / cancer
- ③ $\hookrightarrow$ Angiodysplasia.
- ④ $\hookrightarrow$ Dieulafoy's lesions. (5%)
 (large tortuous arteriole in the stomach) $\rightarrow$ erodes + bleed.
- ⑤ $\hookrightarrow$ Aortoenteric fistula. $\rightarrow$ in Hx of vascular surgery in Abdomine think about this !!
 $\leftarrow$ angiodysplasia. (life threatening)
- ⑥ $\hookrightarrow$ Hemobilia $\rightarrow$ Blood form biliary tract $\rightarrow$ Duodenum.

$\Rightarrow$ Clinical Presentation :

① Hematemesis :

- $\hookrightarrow$ Frank (Fresh blood) $\rightarrow$ Massive.
- $\hookrightarrow$ Coffee ground Vomiting.

② Melena.

(Hematin $\leftarrow$ Prothoblenogen) $\rightarrow$ (مِلَّة) $\rightarrow$ (مِلَّة) $\rightarrow$ (مِلَّة)

③ Hematochezia. indication of LGIB

but, $\nrightarrow$ Also Seen in Massive UGIB.

$\hookrightarrow$ with Hemodynamic instability.

④ Anemia + its symptoms. (IDA)

⑦ Hemosuccus pancreaticus.

⑧ Osler-weber rendu syndrom.

(~~inherited~~ Hereditary Hemorrhagic telangiectasia)

⑨ Drug (NSAIDs / Anticoagulant)

High doses

Unproper mucosa.

⇒ Management / Treatment :-

→ ensure if there is orthostasis.

① Assessment of vital signs + Hemodynamic Condition.

② 2 Large Bore Cannula.

③ Blood Sample :

↳ CBC

↳ Cross match.

↳ LFT / KFT.

↳ Coagulation Profile.

... Normal ← INR

④ PR : if Patient claimed that he has hematochezia or Melena.

⑤ Blood transfusion . (S.S. نقل الدم)

↳ As long as Patient's Hgb > 7

↳ Don't give Blood.

transfusion Side effects

↳ unless: ongoing Hematemesis.

1 = Patient still has → Melena.

2 = Cardiac Patient

↳ Hgb must not be lower than ⑧.

Polus 10 mg/kg $\leftarrow$ give IV give 1st Heparin : 2000 —
Infus 18 IU/kg/h
International Unit. $\rightarrow$ Main stay treatment in bleeding.

→ Main stay treatment in bleeding.
(early heal ulcers)
for (48-72 h)

⑥ IV PPI $\Rightarrow$

↳ Polus esoprazole (Nexium)
Pantoprazole

(Polus dose: 80 mg
infusion : 8 mg/h ↓
(ما يربط هذا!!))

⑦ endoscope → (طائي ربط هيا !!) → injection (epinephrine)
↳ within (12-24 h) → sclerization

← لیڈر آئل ال endoscope باہر؟

① To reach to Proper Diagnosis + Proper Management → Clear Field 11 to 15

② Risk of Aspiration, infection.

⑧ I can also give vasopressor. $\swarrow$ octerionid

(For severity assessment)

((Glasgow Blatchford score (GBS)))

↳ This scoring system and others

helps to estimate the likelihood of

pts to estimate the likelihood of
(^①Rebleeding / need of urgent ^②hemostasis control / ^③mortality)
Risk stratification score used to triage

(a Risk Stratification score used to triage management in hemodynamically stable patients with UGIB)

١- وهو تقييم يعتمد على مدى زيادة في الـ urea (BUN) عنه تكرر الدم الي صباره Bleeding ويبر عنه بـ (BUN) و مدى لثقله في الـ Hgb ، الـ Systolic BP range + Additional criteria.

LHR

6 Melena

L) Syncope

↳ Liver disease

↳ Heart

3e disease

Score 0: low (likelihood of ~~ble~~ rebleeding, and urgent intervention)

Score ≥ 7 : is associated with a higher likelihood of urgent endoscopic intervention and mortality.

(Antibiotic (^{abik_{no}} Macrolides)) ← Erythromycine ← ^{100%} Dose
(250 mg IV)

1) Gastroparesis (مقاومة المعدة)

① ~~First~~ Second look by endoscopy.

③ Surgery.

Intervention:-

- ① Alcohol
- ② Heat probe
- ③ Hem. spray
- ④ Band ligation
- ⑤ sclerotherapy
- ⑥ Endo. const.

* Forrest classification of bleeding PUD :-

((اذا Intervention لا يسبقه "Stage")*)

① Stage 1 (Active hemorrhage)

Risk of bleeding $\left\{ \begin{array}{l} \sim 90\% \rightarrow 1a: \text{Spurting arterial hemorrhage.} \\ \sim 50\% \rightarrow 1b: \text{Actively oozing hemorrhage.} \end{array} \right.$

② Stage 2 (evidence of recent hemorrhage)

$\begin{array}{l} 4^0 \sim 50\% \rightarrow 2a: \text{Non bleeding ulcer with visible vessel.} \\ 2^0 \sim 30\% \rightarrow 2b: \text{Ulcer with adherent clot.} \\ \sim 10\% \rightarrow 2c: \text{Flat ulcer with a dark base.} \end{array}$

③ Stage 3 (Clean base ulcer)

$\sim <5\% \rightarrow \text{Flat ulcer base [No active hemorrhage]}$

$\rightarrow \rightarrow$

= low Risk (Forrest IIc & III):

(Can be managed as out patients with PPI therapy)

= High risk (Forrest I $\rightarrow$ IIb):

(Typically require inpatient care)

← (ملاحظات مهمة)

According to vital sign state of UGIB patients it can be divided into:

(Stable)



① Hx. taking

(Malign. Surgery, أدوية, أمراض)

② Physical exam

- General ex

- Abdominal ex.



vital sign → =

Tachycardia

↳ early sign of Hypovolemia.

• HR • RR

• BP

- PR

investigation

• 2 large bore IV

• Blood sample

• RFT ? why.

①

kidney touch from dehydration

(Un-Stable)



(Comatose / Unconscious)

BP 90/40

① ABC

② 2 large Bore cannula.

③ Blood sample

④ Fluid + Blood

لو كان جاف في الـ stomach

⑤

Age anemia

• endoscope (Alarm sympn)

Compromised (Active bleeding)

(CVD)

• endoscope

High risk

low risk

(12-24h)

• endoscope ?

(Diagnostic / Therapeutic)

• Band ligation
• therapeutic spray
• Cutarization

↳ Patient may be CKD ($\uparrow$ Uremia.)

↳ Gastritis
↳ UGIB

(uremic gastritis)

↳ The hardest form of gastritis.

↳ ABG if there is electrolyte imbalance

- plane :-

1) Admission

80% $\Rightarrow$

(الزف يتوقف بنفسه)

20% $\Rightarrow$ only

Need intervention

② Fluid 2-4 L according to cardiac diseases. (2L)

- Normal saline
- Ringer lactate.

③ Blood according to Hgb. (7-9)

④ PPI $\rightarrow$ in non variceal

⑤ Antibiotics $\rightarrow$ in variceal
↳ Cephalosporine (3rd gener.)

والا س وج كبريت دابلت
H. Pylori test
والا س وج كبريت دابلت
+ve لو كان Treatment

(طالقة)

LGIB

↳ Melena

↓

• Small intestine

• Rt Colon

↳ Fresh blood

↓

• Lt Colon

• UGIB

dyspepsia

↳ Organic $\leftarrow$ PUD

↳ Functional

$\therefore$ Organic لازم اني كذا

↳ epigastric pain synd

↳ No NSAIDs

↳ -ve H. Pylori.

⑥ Vasopressor octerionid / Trilpressin.

⑦ endoscope within 24 h.