

Dr Ameer Gendeya





29 y/o male c/o ^{Esophagus}

① for 3 months and regurgitation with X-ray:

② Describe the picture: Bird's beak appearance
and Investigation: Barium Swallow, X-ray

③ Dx: Achalasia

④ DDX: ① Primary esophageal dysmotility: achalasia, diffuse esophageal spasm, HTW LES

② Secondary: stroke, CREST, DM, Parkinson's

⑤ Definition: Failure to relax LES.

⑥ Epidemiology: 1-2 Per 200,000
male to female 1:1, bimodal presentation 25-60

⑦ Risk of malignancy? 8% after 20 years.

⑧ Clinical Features: ① Dysphagia (liquid and solids)
② regurgitation ③ difficulty belching ④ wt. loss
⑤ Heart burn

⑨ the mechanism of heart burn? fermentation of food

⑩ Mechanism of achalasia: - Nitrous oxide synthetase ↓
- Autoimmune Mediated destruction

⑪ Bld. supply of esophagus / Segmental

A. cervical part: Inf. thyroid a. branch from thyrocervical trunk branch from 1st part of subclavian.

B. thoracic part: descending thoracic aorta, bronchial a.

C. abd. part: left gastric a. branch from celiac trunk from abd. aorta



① length of esophagus? 25 cm and the distance from upper tooth incisor is about 43 cm
 - the length of abd esophagus about 3-5 cm
 GERD. It is not a disease

⑫ Investigation:

① The Gold Standard is (Esophageal manometry)
 the normal tension about 20 mmHg
 in achalasia more than 60

② Barium swallow shows bird's beak appearance

③ OGD: to exclude cancer that cause pseudoachalasia

⑬ TTT:

① Pharma: - Ca^{+2} channel blocker: diltazem, verapamil
used early - sublingual long acting nitrates
 side effects: edema, headache, Hypotension.

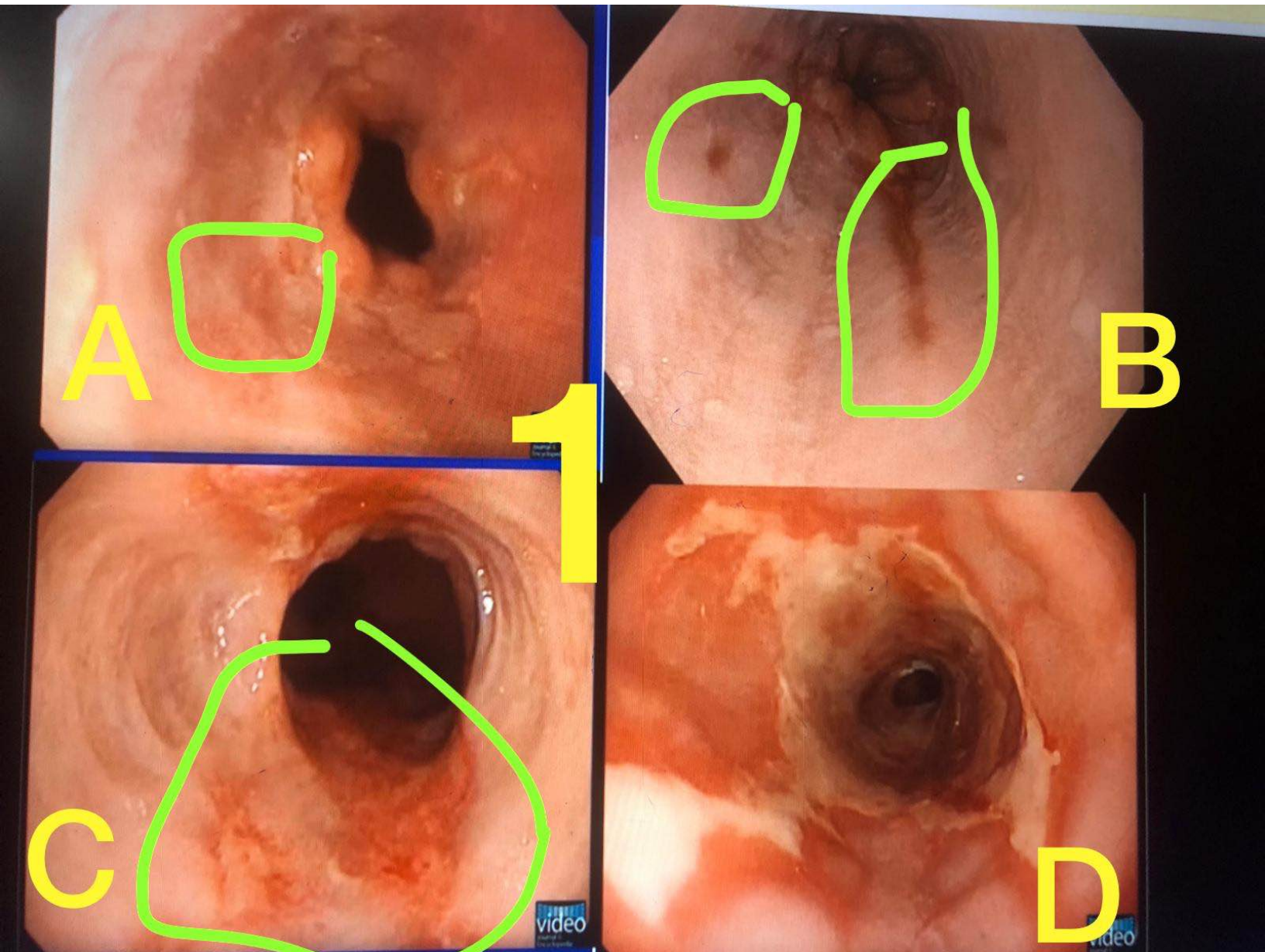
② Pneumatic dilatation: non surgical, better in old age
 SE: GERD, hematoma, Perforation

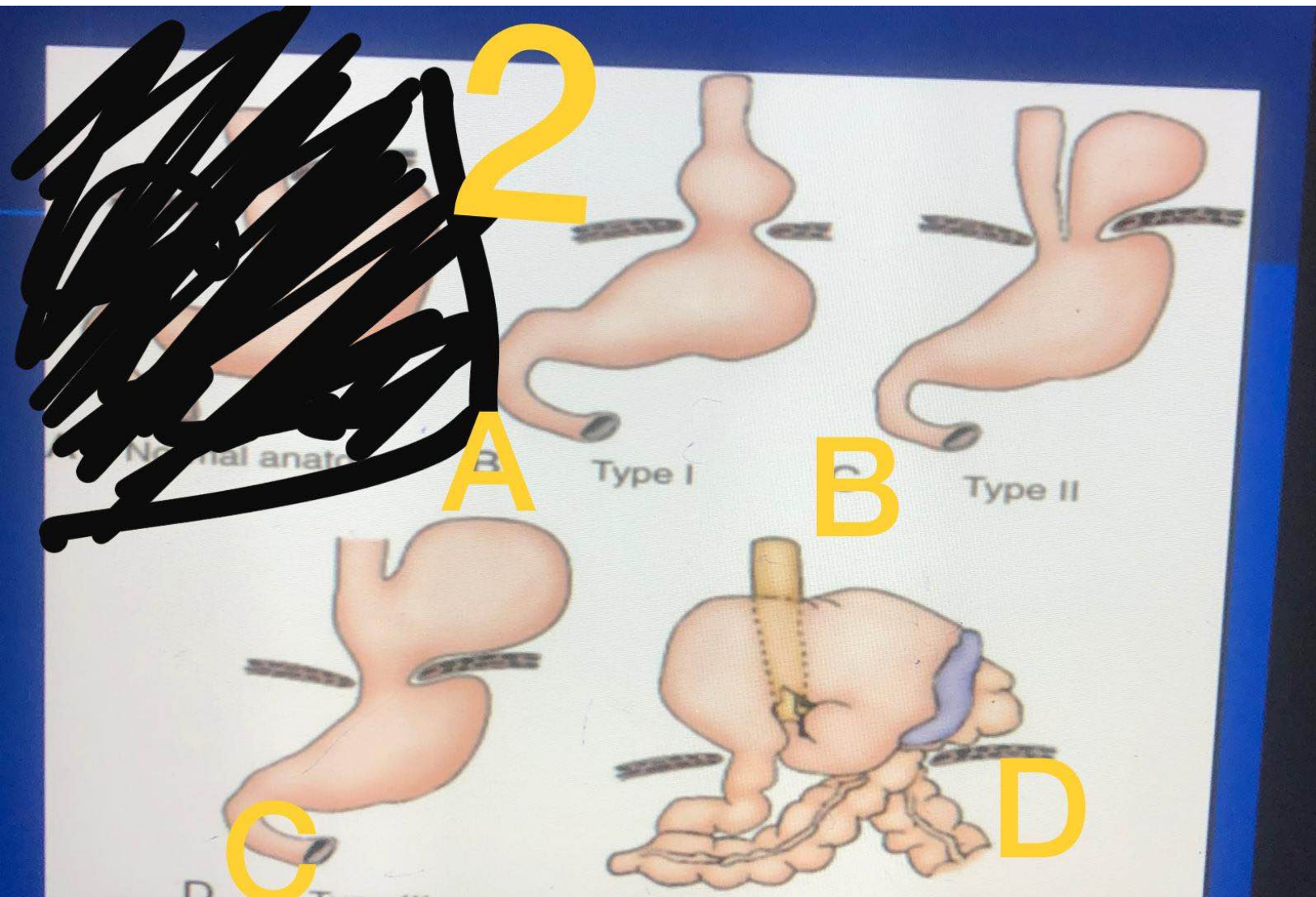
③ botulinum toxin injections:
 SE: pleural effusion, Mediastinitis.

④ POEM: Per oral endoscopic myotomy:

⑤ Surgical: Heller's myotomy







22 y/o ♂ clo regurgitation and heart burn for 1 year.
 or - Pt referred from Respiratory department or from ENT to do OGD because not response to H₂O₂ Asthma or globus sensation etc with pictures.

1- DDx: GERD, Achalasia, Hiatus hernia, esophagitis, Asthma, esophageal cancer.

2- The most likely Dx: GERD: gastroesophageal reflux d. (Relaxation of LES) or the content of stomach mixed to the esophagus.

3- The Symptoms:

A- Typical: Heart burn (80%), Regurgitation

Pyrosis

water brash

- Globus Sensation (sensation of a lump in the throat)
 - odynophagia.

B- Atypical: Cough, hoarseness of voice, wheezing

Sore throat, dental erosion, ear pain.

① what silent reflux means: When the Pt have the atypical symptoms alone.

② what the alarming sx and what means.

③ Dysphagia, wt loss and hematemesis

④ means, there's a suspicion for cancer (malignancy)

⑤ Investigations: ① the Gold standard is 24 hrs pH metry.

② OGD (show gastritis) ③ manometry

④ Barium swallow ⑤ gastric emptying studies.



⑦ Describe the pictures ↑ and what the name of
- LA classification (Los Angeles)? classification

Pictures show the grading of esophagitis refluxes:

- A - Grade A: just small erosions
- B - Grade B: show longitudinal and small erosions
- C - Grade C: ~~show~~ and erosions about less than 75% of the picture (horizontal)
- D - Grade D $\Rightarrow$ more than 75% of the picture

⑧ Picture ②: Types of hiatus hernia:

- Type I: sliding about 95% (OG junction above diaphragm)
- Type II: Para (rolling) 4.5% (OG junction under diaphragm)
- Type III: Mixed 0.4%
- Type IV: organ involvement 0.1%

⑨ Mechanism of GERD:

- ① ↓ LES tone
- ② delayed esophageal ~~time~~ emptying
- ③ defective esophageal motility
- ④ Hiatus hernia.

⑩ Risk factors?

- Smoking - alcohol - chocolate - obesity
- Pregnancy - large meals, ttt of achalasia
- drugs: Ca^{2+} c. blocker, nitrates.

⑪ Hiatus hernia symptoms called Great mimics, what that means? have vary symptoms and its difficult to distinguish e.g:

heart burn, SOB, cough, belching, GERD, asthma
distension, dysphagia



Barrett's esophagus



Salmon like



- What's Barrett's esophagus?

~~It~~ could be caused by a long standing of GERD as a complication and the other complication is esophagitis, Anemia

* the Barrett's: abnormal metaplasia of the esophagus from stratified squamous epithelium to columnar epithelium with interspersed goblet cells.

and it increases the risk of cancer.

- the shape in OGD is: Salmon shape esophagus

TTT = of Hiatus and Gerd:

↳ life style modification:

cessation of smoking, alcohol, avoid chocolate
decrease weight.

↳ Medical ttt $\stackrel{\text{efficacy}}{=}$ Surgical ttt



PP I

Antacid

H₂ blocker



indication of surgery:

1- failed medical ttt

2- Patient request

3- Complications.

4- have other esophageal manifestation (cough, chest pain, asthma)

Surgery:

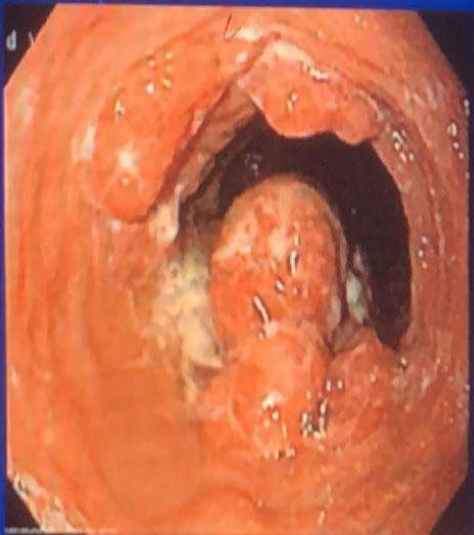
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Partial

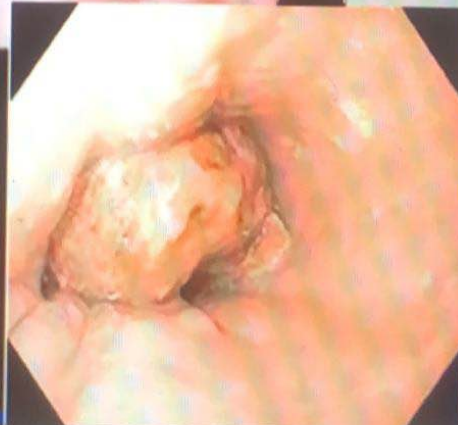
} Fundoplication



3



600 x 459



(3)

Esophageal Cancer:

→ upper 2 third → SCC
 → lower third → adenocarcinoma

- male : female : 4 : 1

Adenocarcinoma	Squamous cell carcinoma
- lower third and LE Junction	- upper two third
↑ risk by: GERD, barrets, obesity	↑ risk by: Achalasia, alcohol, tobacco

Symptoms: dysphagia (late sign) 75%

wt. loss, long standing Hx of GERD, HH

Hoarseness of voice, Hiccups

↓
 recurrent laryngeal nerve

↓
 phrenic nerve

Inve: OGD (Gold standard), ~~bar~~ barium swallow
 CT, PET CT, EUS

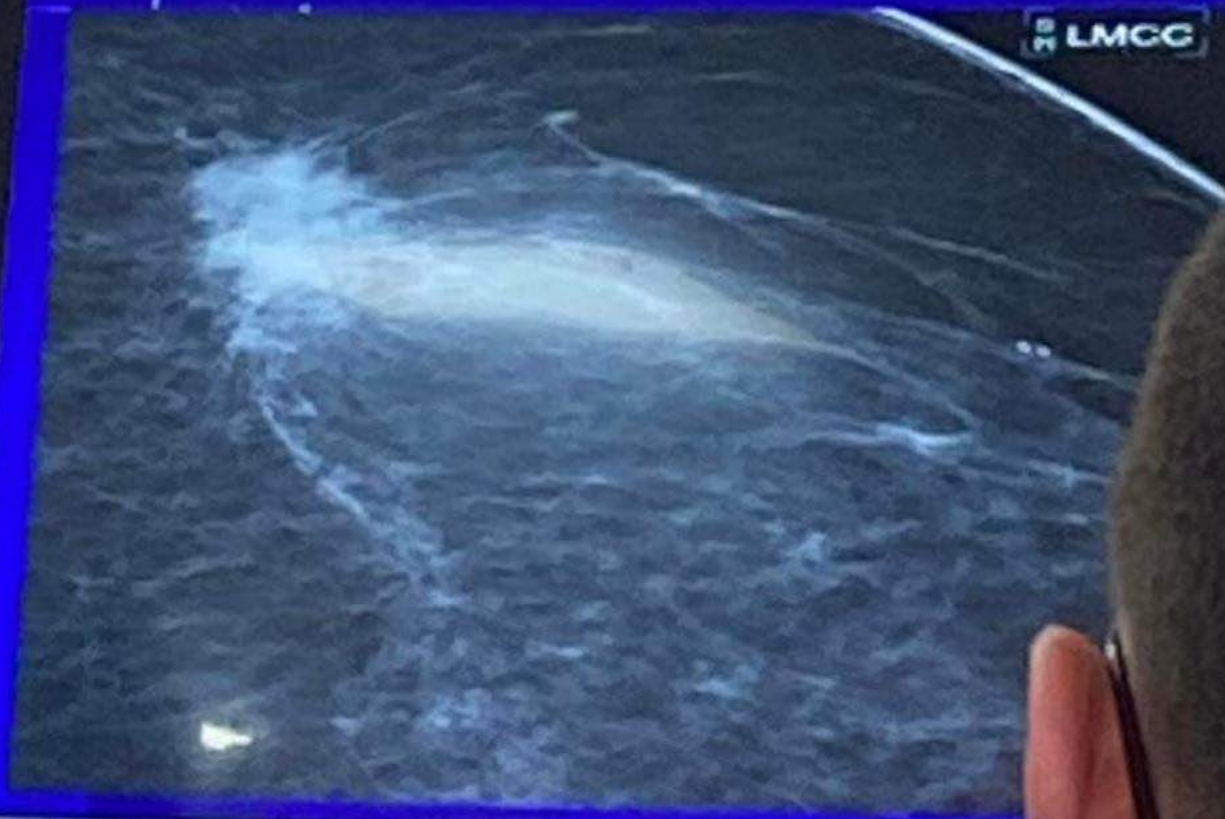
↓
 Staging
 ↓
 TNM



What is the most likely diagnosis In this mammography of 55 y old lady with 3 cm breast lump

1

LMCC







① Dx: malignancy Cancer breast (Picture 1)
the picture show: Sun ray appearance, Microcalcification

② Short note about Breast LNs:

⇒ 2 Groups ⇒ 1- Internal mammary LNs 8%.

⇒ 2- Axillary LNs: 3 levels:

A-level I: Anterior (Pectoral), Post (Subscapular) and lateral (axilla).

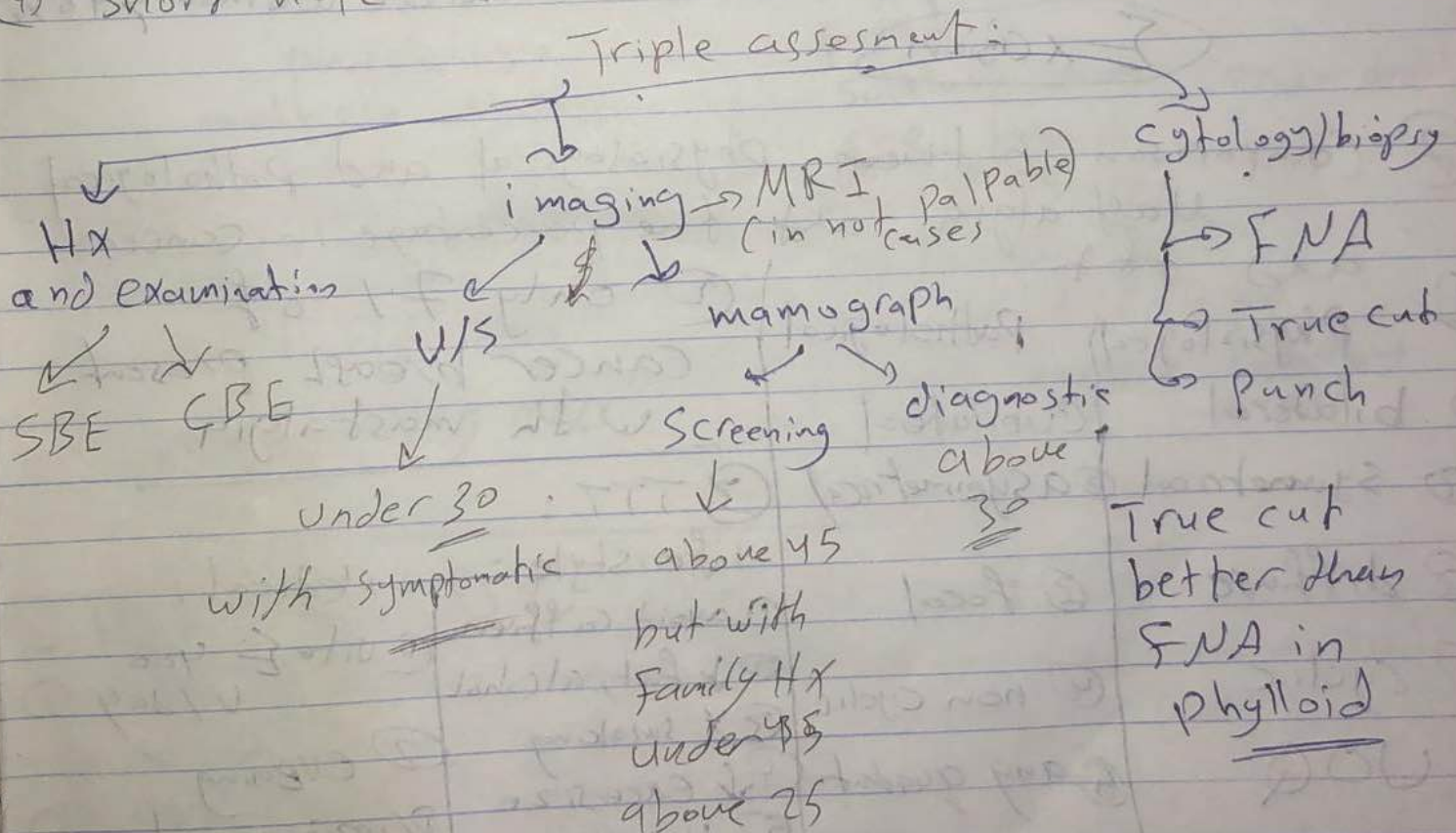
B-level II: central and inter pectoral.

C-level III: Apical (Sub clavicular).

③ In procedures of Breast:

Long thoracic nerve injury cause: Wing scapula

④ Short note about triple assessment:



⑤ Short note about BIRAD staging:

- | | |
|-------------------|---------------------------|
| 0 → Normal breast | 3 → Probably benign |
| 1 → Negative | 4 → Suspicious malignancy |
| 2 → Benign | 5 → Malignancy |
| | 6 → Known case cancer |

⑥ 20 y/o ♀ cl/ lump 2 weeks ago, painless, has no Hx of nipple discharge, No family Hx, Examination shows, round, solid, 1 cm mass, in LUQ (outer) that is, mobile, and rubbery in texture:
 - What most likely Dx: Fibroadenoma
 - Risk of cancer: 0.1%.

- Httc → < 3 cm Conservative Htt and 30% disappear spontaneously
 → if large > 5 cm (e.g. Giant fibroadenoma) or if rapid increase in size or woman > 40 y.
Excision

⑦ Comparison between physiological and pathological mastalgia and the percentage in cancer and Htt:

① Physiological Pathological

① bilateral ② unilateral

① Symmetrical ② asymmetrical

③ diffuse ③ focal

④ cyclic ④ non cyclic

⑤ UOQ ⑤ any quadrant

⑥ Radiate to axilla ⑥ No radiat. b.

① only 7% of cancer breast present with mastalgia

③ TTT:

- life style:

① avoid caffeine

② ↓ fat, alcohol

③ X smoking

④ ↓ exercise

⑤ Hot compress

⑥ ↑ vegetables and carrots

- Medical:

① vit E 400 U/day

② evening primrose oil

③ Tamoxifen 20 mg/day for 3 months



⑧ 35 y/o ♀ pt w/ single breast discharge (Rt breast)
 the color is bloody and spontaneously discharge.
 A- describe the picture (2) and the most likely Dx?
 - the pict. shows single duct nipple bloody discharge.
 - the most likely Dx is duct papilloma.

B- What the Hx? Microdochectomy.

C- if the discharge is greenish in color and from more than one duct what the most likely Dx and the Hx?

Duct ectasia / Hx: Had field operation with periductal mastitis } Total major duct excision.

D- Compare bet pathological and physiological Nipple discharge.

physiology	patho
- multiple ducts	- solitary duct (major duct)
- both	- one breast
- green, milky, yellow color	- red (bloody)
- not spontan.	- Spontaneous
- occult bld -ve	- occult bld +ve
- no underlying mass	- there's maybe underlying mass

* Hints to Dx discharge:

① Duct papilloma: mass underlying to nipple, the discharge is bloody. / suspect to metaplasia to cause cancer

② Duct ectasia: green discharge, mass underlying to areola of nipple and there's inflammation, Hx of smoking. / Hx: AB and in prognosis bad
 Excision



22 y/o ♀ c/o rashes in her breast
start firstly at the nipple and areola then spread

① the most likely Dx and Picture? Paget's dz.

- risk of cancer: 97%

Paget's dz is rare form of breast ca. 1-4%

- Clinical features: Unilateral, Excoriating, ulcerating
crusting, Itchy.

- How to confirm the Dx of this case?

Inisional Biopsy

- Hist. simple mastectomy.

- the most DDX and how to compare bet them?

Paget's dz

Eczema

- unilateral

- bilateral

- Progressive continues

- intermittent

- dry or moist

- Moist

- Nipple always involved

- Nipple sparing

- no common

- Pruritis present





A 28 y/o ♀, Nursing her child, c/o Redness, erythema and tenderness breast according to picture and Hx:
① the most likely Dx: lactational breast abscess (mastitis)

② the most common organism, ~~the~~ and the mechanism? Staph. aureus, by the mouth of child to mother nipple.

③ Hx: Aspiration and antibiotics eg. penicillin - cephalosporins

If failed $\Rightarrow$ I and D

- If the same Hx in pt not lactate and smoker have DM the most likely Dx: non lactational breast abscess

- The organism, mixed organism: aerobic and non aerobic.

Hx: - Warm Soaks, AB

- Aspiration and I & D

- late cases $\Rightarrow$ Hadfield's operation





Case: 40 y/o ♀ Pt, c/o giant tumor in Rt breast
the pt noticed the mass 2 years earlier, 6 months later
the mass presented with erythema, skin ulceration, bleeding
also increase in size very fast, rapid growth,
examination: as symptoms + No LN spreading

1 - Describe the pic and what most likely Dx?
(leaf like tumor) the picture or drop deformity
the Dx: Cysto-Sarcoma Phyllodes ~~tumor~~ tumor

2 - Cancer Epidemiology?

10% of Phyllodes malignant

and phyllodes account 2-3% of cancer breast

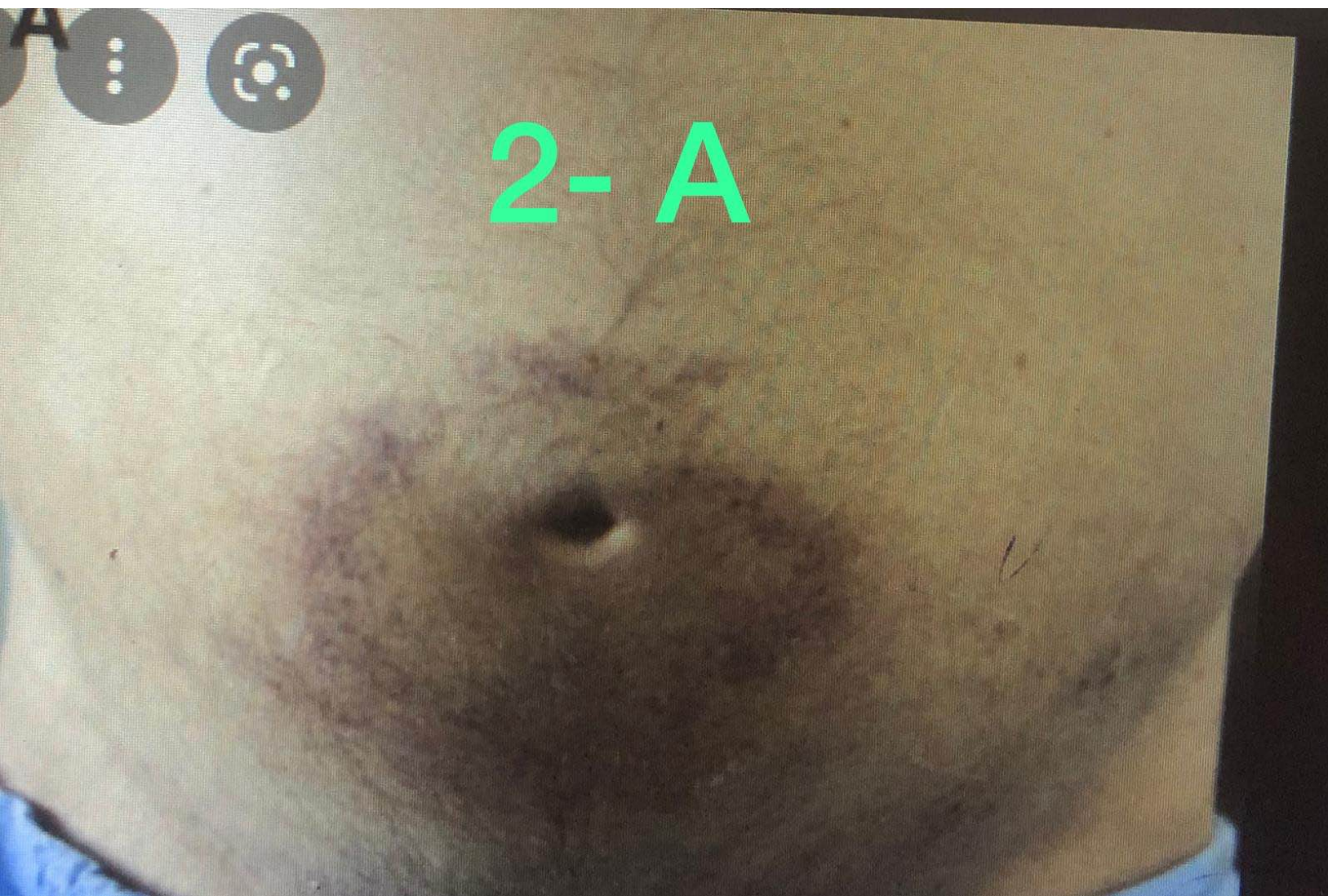
- Hx: Wide local excision

- the % of recurrence: 30%



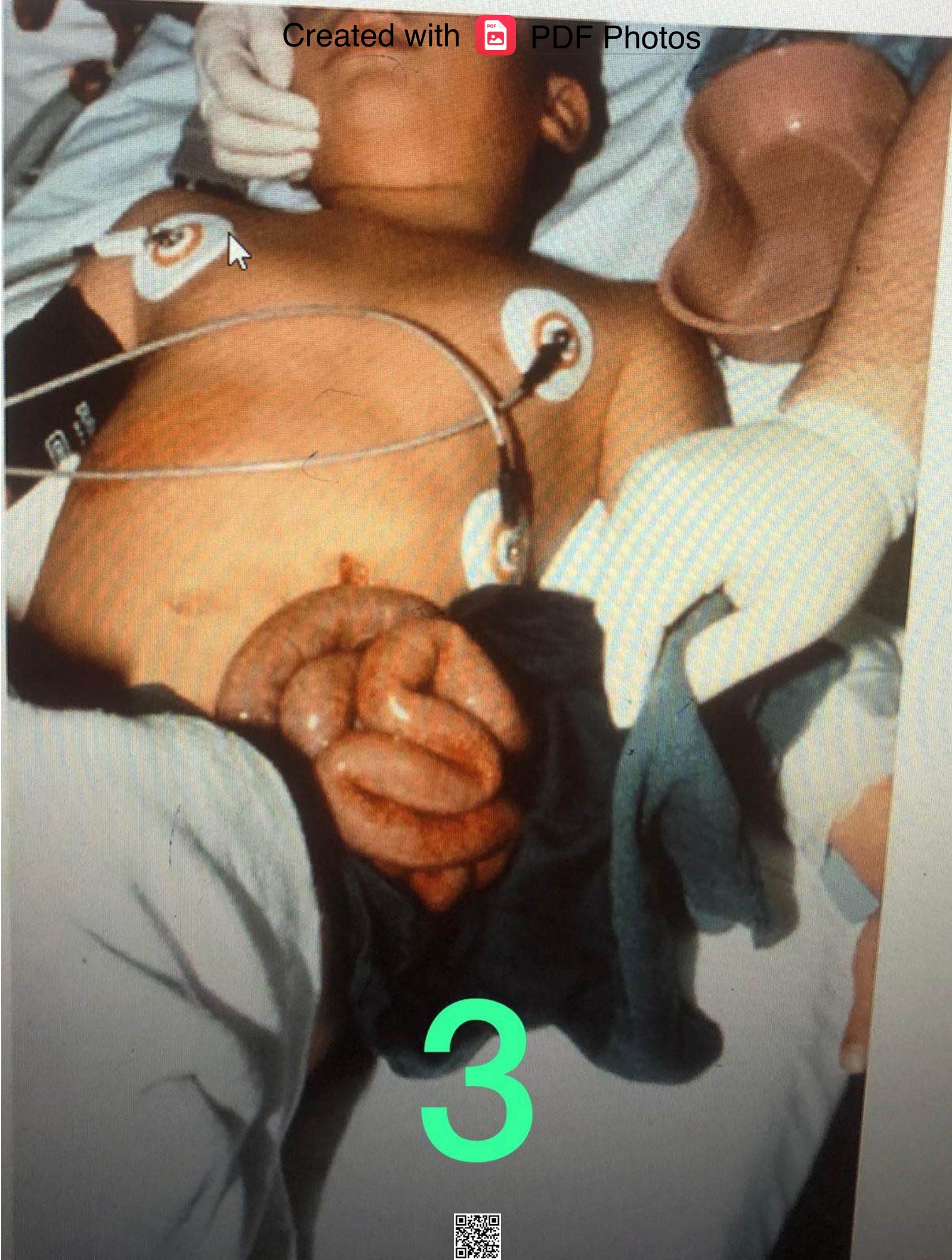






2-B





3



- pt was a driver in head on MVC (RTA)

① what is the most likely dx due to picture 1:
Buck handle injury due to seat belt injury.

② the most likely organs could be injured in this case
perforation intestine and fracture in lumbar vertebra (L3).

③ what's the most common cause of death in trauma? Intraperitoneal hemorrhage
(Missed Abd injury).

④ what is the commonest organ injury in blunt trauma?
Spleen > liver
(first) (second)

but the common fatal injury is Liver

⑤ Describe picture 2:

A. Cullen sign

B. Grey turner sign

⑥ IDdx: Pancreatitis

⑦ in pt with Trauma the most likely dx:
hemorrhage from pelvic or lumbar fracture.

⑧ when to appear? 12 hrs or later

⑨ Describe picture 3 and the cause?
Evisceration, by penetrating injury



* The investigation of choice in pt with Trauma?

- if the pt stable → CT Scan
- if unstable → just FAST.

What FAST and DPL mean?

FAST: Focused assessment Sonography For Trauma

DPL: diagnostic peritoneal lavage.

- Is there's still rule for use DPL?

Yes, the only rule nowadays is pt with head injury and CT abdomen and US show free fluid in the abdomen and there's no liver, spleen kidney injury

free fluid = free fluid = US, CT are head injury

normal (= renal), spleen liver etc

hollow viscus no injury

- How to diagnose diaphragmatic injury?

By laparoscopy, not seen in → U/S

CT
DPL
xray

- What we see in the FAST and

What FAST mean?

- in fast 4 regions: ① Morrison's pouch (hepatorenal pouch)

② Peri-spleen (region) ③ pelvic

④ epigastrium (pericardium)

- E-fast: Extended Fast →

(pleural region) = US of

Hemo thorax.



* Strategies of Management Abd trauma;

- ① Gunshot → laparotomy mandatory
- ② stabwound { → unstable (laparotomy)
 ↳ stable (observation)
- ③ blunt trauma { → stable (observation)
 ↳ unstable (laparotomy)

*





- What's the name of operation in this picture?

Damage control surgery

- We use this surgery for what?
lethal triad → Met. acidosis
 ↳ hypothermia
 ↳ Coagulopathy

- explain the steps of this surgery?

① Control of hemorrhage and contamination

② Back to ICU for resuscitation

③ definitive repair of injuries
and closure of abdomen.

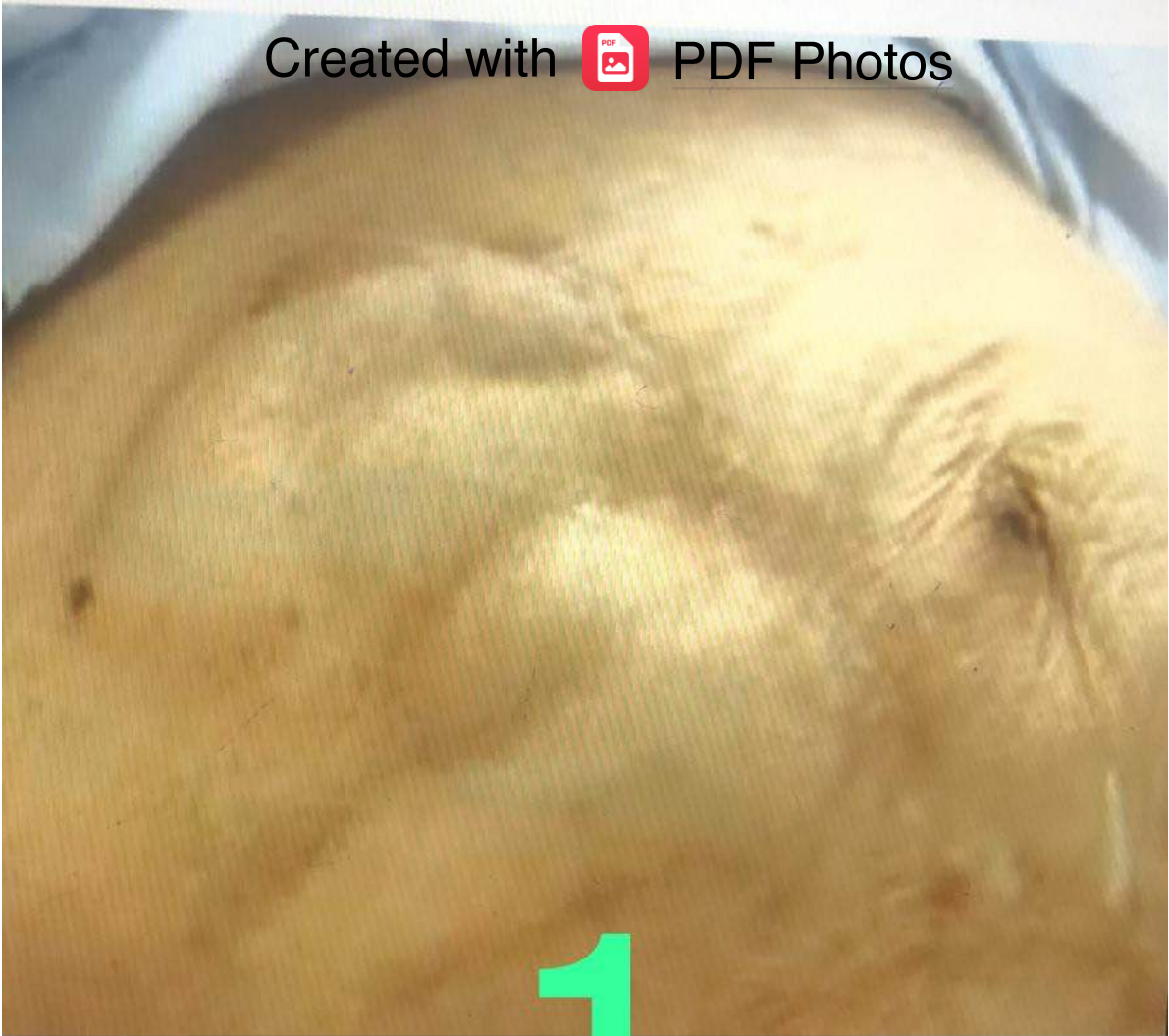
+ Mention 3 complications of this surgery?

① Sepsis (bacteria)

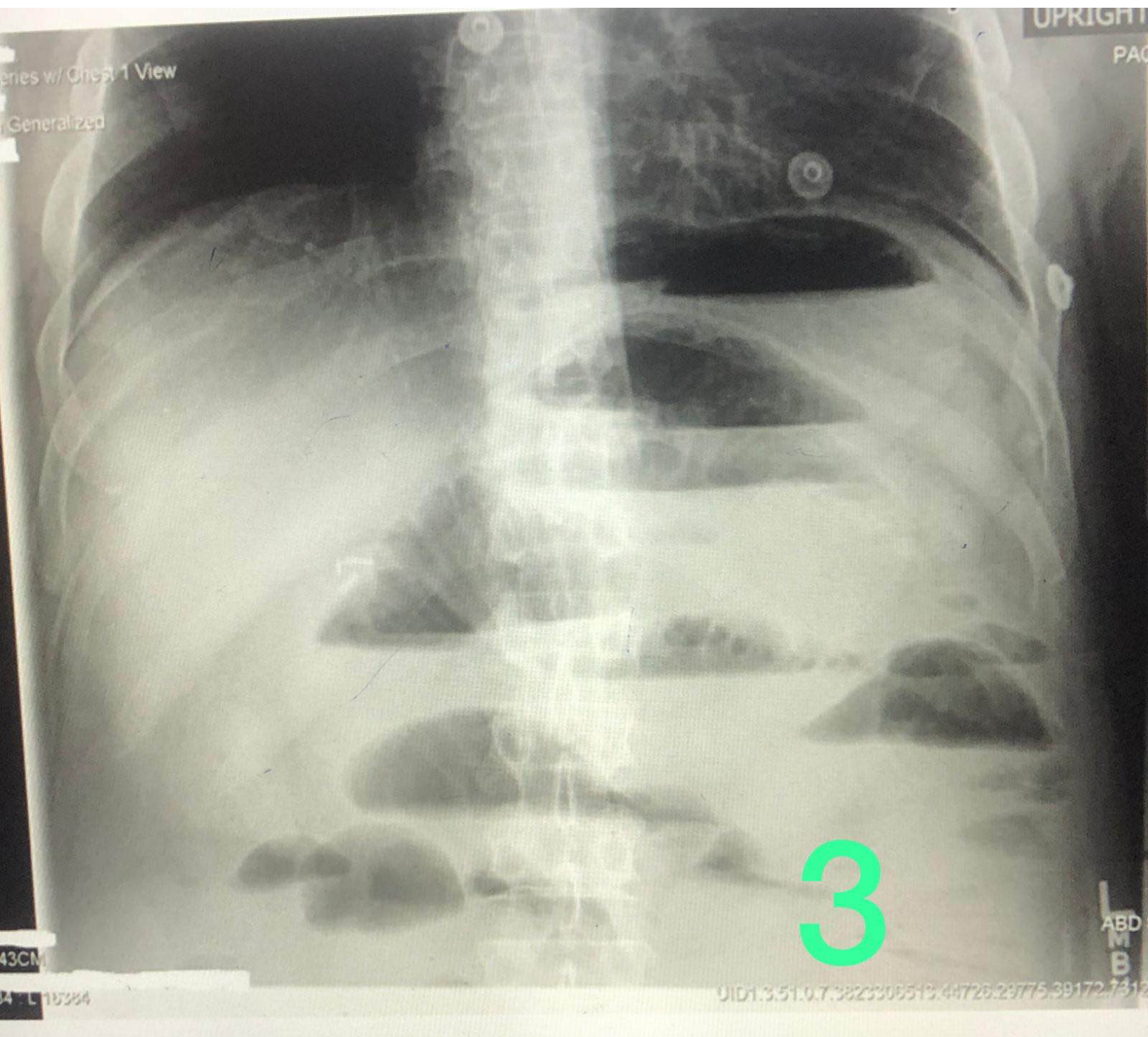
② DVT

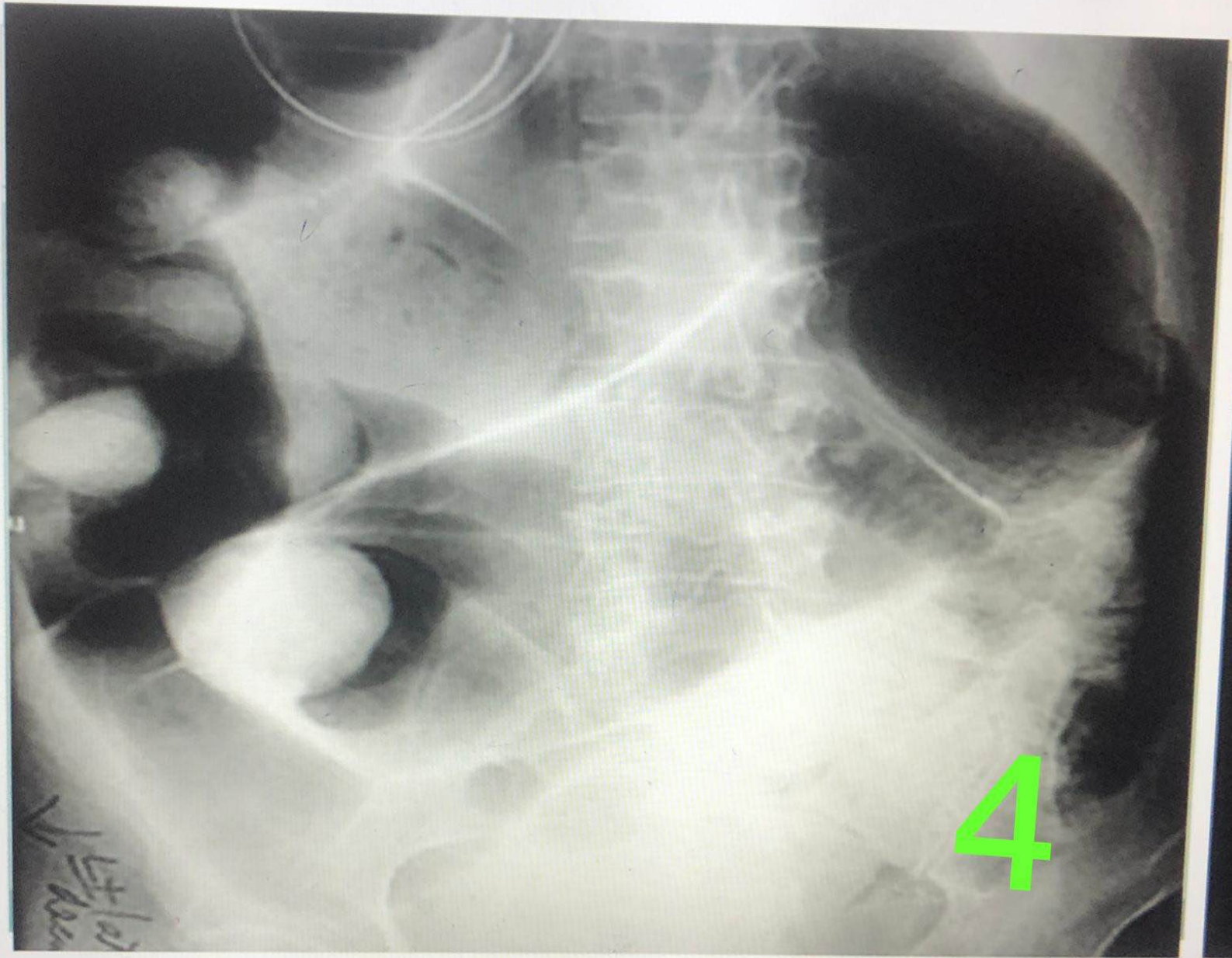
③ Abd. Compartment Syndrome.









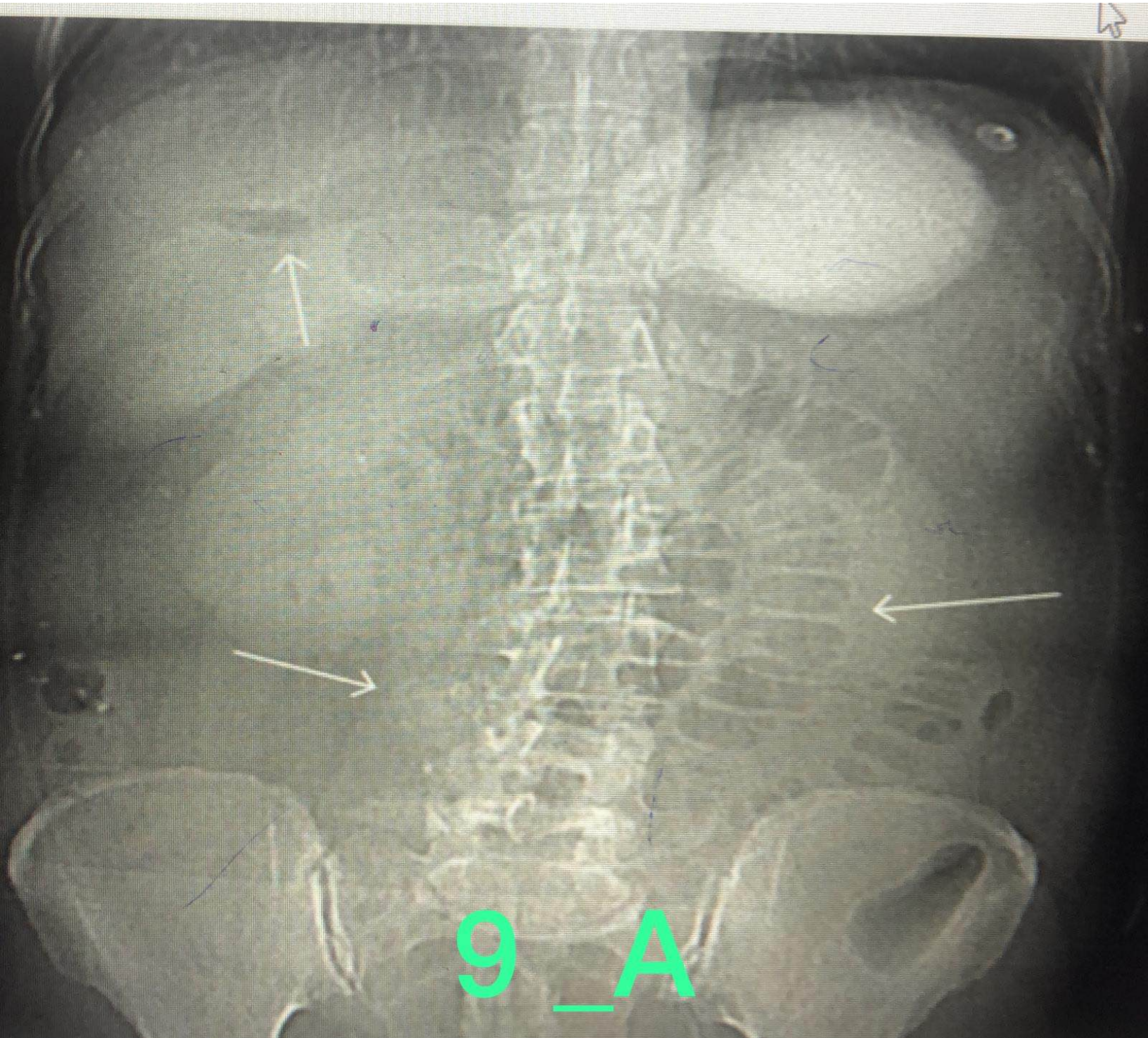














① what did you see in picture 1 and what mean?
 Visible peristalsis movement of small intestine and it means
 when see in it in the side, this side suspected ~~to~~
 Normal site

ما في حركة في البطن في هذا الجانب

② Describe pict 2 Supine X-ray show Valvulae
 Coniventae (small bowel obstruction in Jejunum).

③ Picture 3: Air fluid level shown in standing x-ray
 or the other name is (stepladder Pattern).

④ Picture 4: Supine X-ray show large bowel obstruction

⑤ Picture 5: Lateral decubitus x-ray show Air-fluid level
 We use it in pts can't standing up.

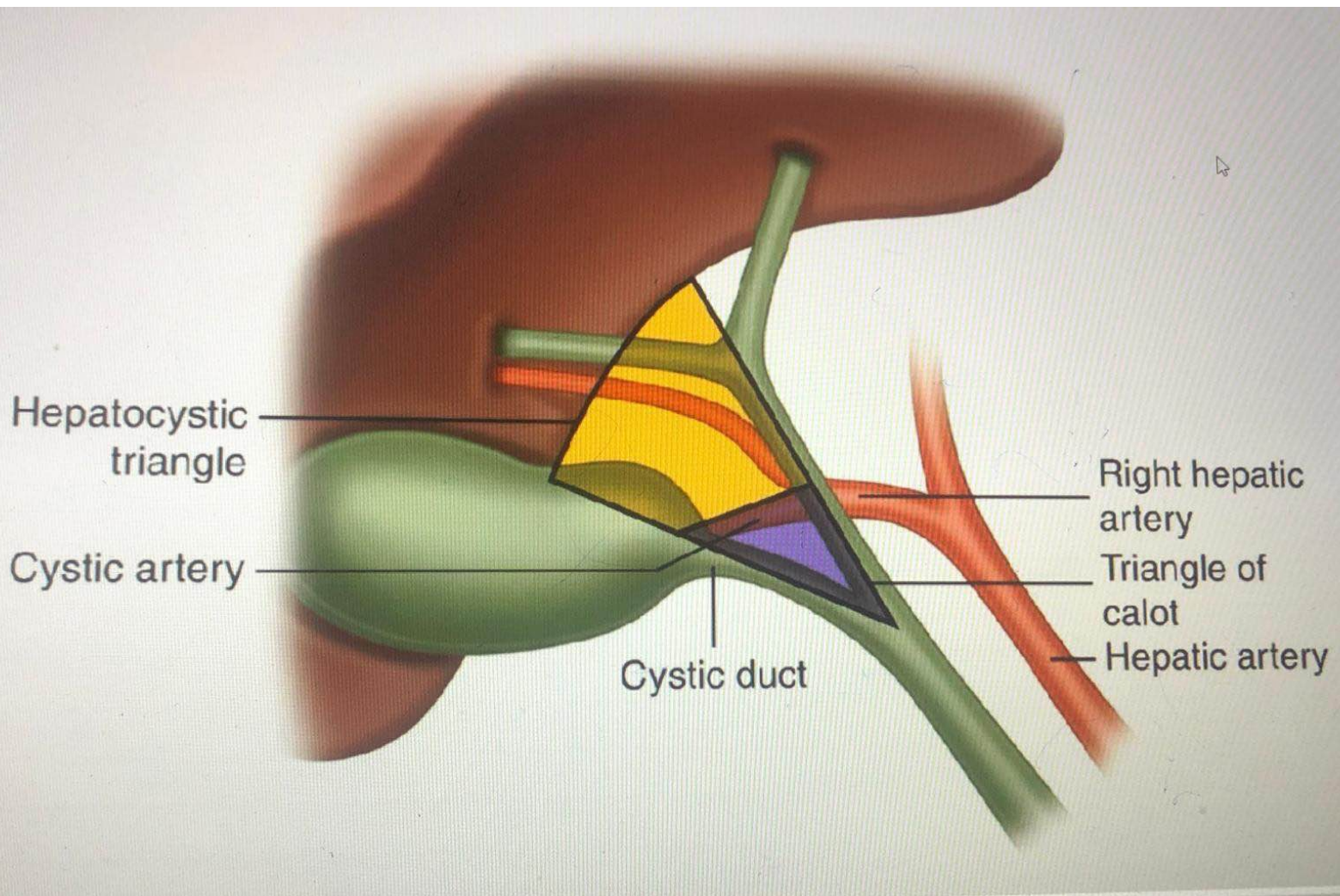
⑥ Picture 6: exploration Show adhesions in small (bowel)

⑦ picture 7: Trychobezoars. (causes IO).

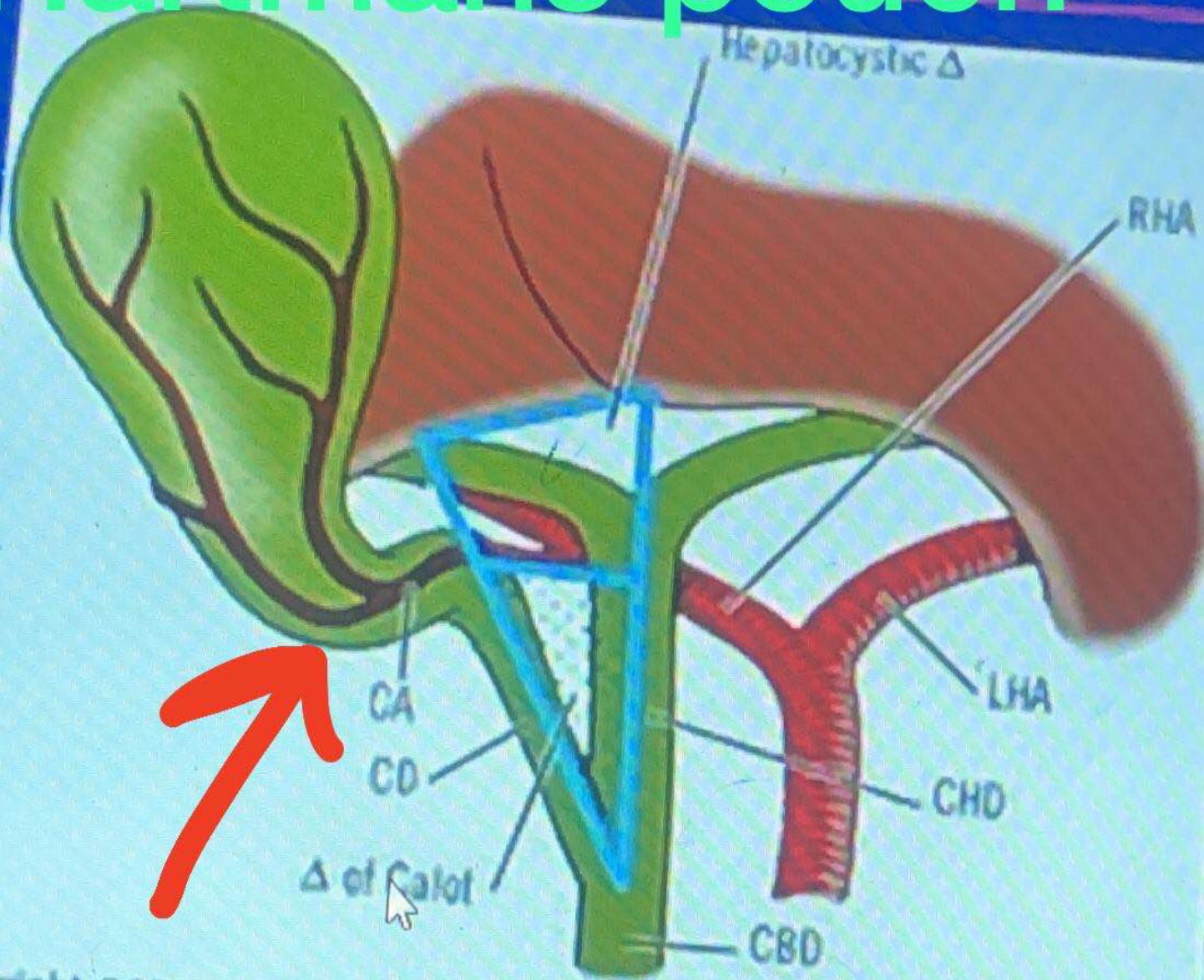
⑧ picture 8: Ascaris lumbricoides cause (SBO)

⑨ picture 9A and 9B: ^(A) Xray show gallstones causes
 IO ^(B) exploration surgery show intestinal
 obstruction due to ~~gallstone~~
 Stone.



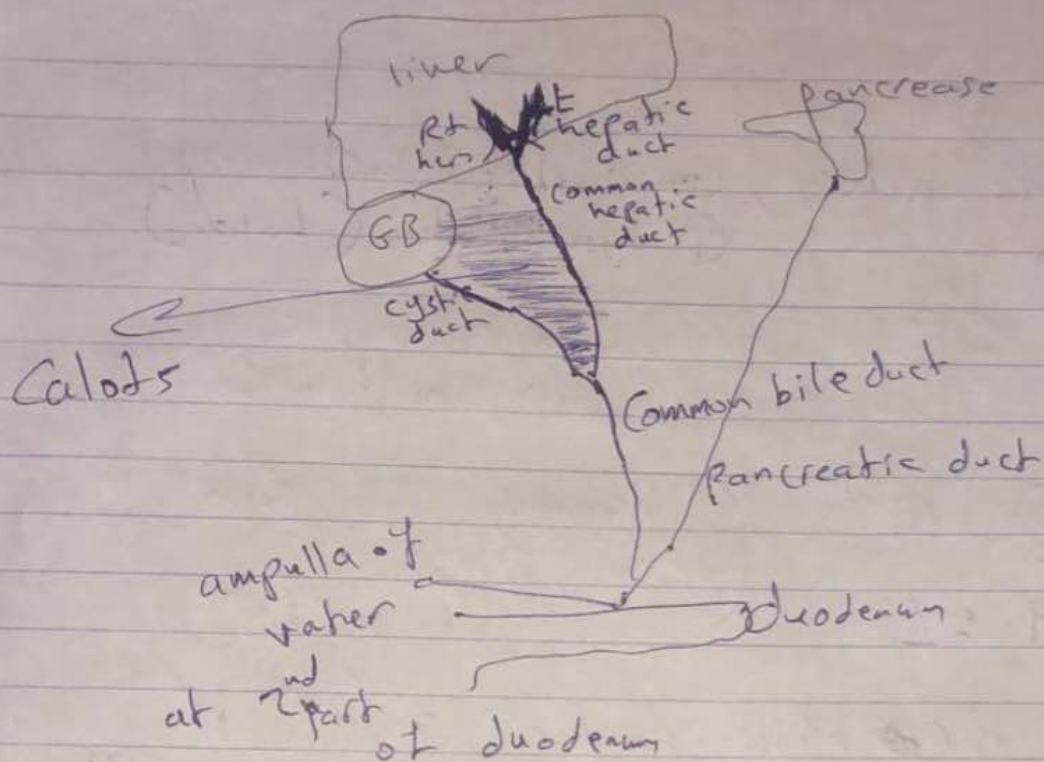


Hartmans pouch



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Q1: What's the name of the triangle that forms by ducts of GB and liver?
Calot's triangle.

Q2: What are the boundaries of this triangle?

① Superior: Int. surface of the liver

② Medial: Common hepatic duct

③ Inferior: Cystic duct.

Q3: the name of pouch that formed by GB and Cystic duct and what is the surgical importance about it?

- Hartman's Pouch

- the importance: - the common site where Gall stones get stuck

- well, only no ca. reliev



Q. what are the content of this triangle?

- ① Rt hepatic artery, ② cystic duct (artery)
- ③ lymphatics ④ lymph Node (Lud)

- 80% of GBD Are asymptomatic and 20% Symptomatic

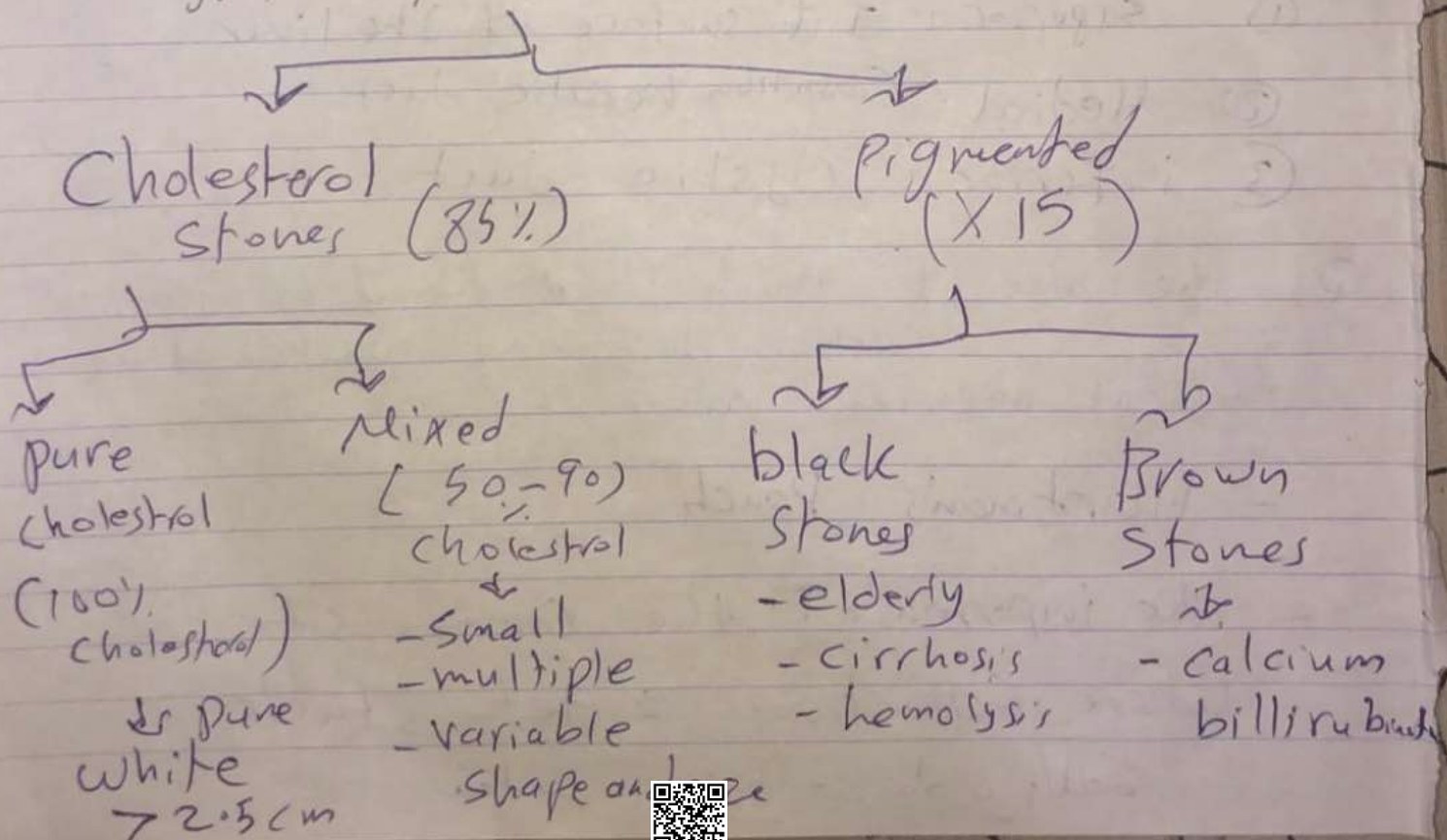
- Ratio ♀: ♂ (Pregnancy and family Hx)
9:1 ↑ risky

- what are the risk factors? GBD
Pregnancy, female sex, family Hx, GBS

- ↑ lipids and carbohydrates in diet

- ↑ cholesterol, triglycerides, DM Type 2

- Types of GB Stones?



3

Created with



PDF Photos

- What are the stages of GBS:

1- Formation of GBS (lithogenic state)

2- Asymptomatic stage

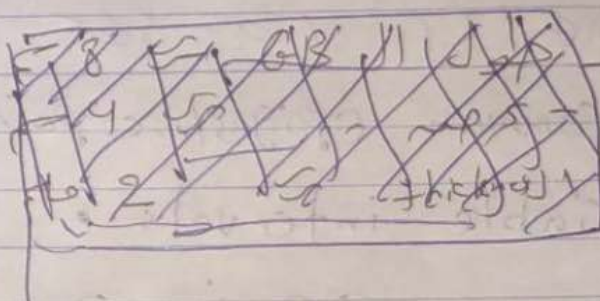
3- Symptomatic stage

4- Stage of complications

GB cancer
cholangitis

gallstone ileus

cholecystitis



* Blood supply: Rt hepatic artery

+ end hepatic arteries (surface)

* Name the surgery of ectomy to GB
and the names of incisions:

- Cholecystectomy

- incisions:

→ Laparotomy

→ Kocher incision

(Rt subcostal incision)



* Why the ratio in female > male?
- in result of estrogen

علاوة على ذلك
في القولون العصبي
ولذلك نسبة الإصابة
أعلى

① decrease motility in GIB
② ↑ cholesterol saturation.

* Rome Criteria for biliary pain;

- ① The Common epigastric pain ± RUQ Pain
- ② Variable intervals
- ③ Severe Pain (مزعج) interrupt daily activity and lead to go ED.
- ④ last at least 30 mins.
- ⑤ Build up to steady level
- ⑥ < 20% relieved by oral analgesic, reduced bowel motion, acid suppression or changing the position
- ⑦ awakes pt from sleep
- ⑧ May be radiated to back (Rt infra scapular region)
- ⑨ may be associated with Vomiting and nausea



* What the difference between biliary cholic and Acute cholecystitis?

- BC : visceral pain - poorly localised
- AC : Parietal pain - well localised.

* Investigation

① CBC : - maybe $\uparrow$ WBC (12-20)
- neutrophils $\uparrow$

② Liver function tests (u) Fasting blood sugar

③ Renal function tests (s) lipase + amylase

④ Plain film abd. Xray: to exclude other causes of abd. pain
C/O, Renal stones.

⑤ U/S $\rightarrow$ supine
 $\rightarrow$ lateral decubitus

$\downarrow$
EUS, laparoscopic U/S or surface U/S

⑥ CT $\rightarrow$ used for staging in tumors
also U/S $\rightarrow$ mini

⑦ PTC, ERCP, MRCP

⑧ HIDA 99 T Scan. (the best way to Dx AC)
(99% of AC)



* What we can see in X-ray rather than other dz?

Gall Stones $\Rightarrow$ 10-15%

Kidney stones $\Rightarrow$ 85%

X-ray 15% Gall stones

CT scan

* What the U/S features of AC?

- Gall Stones or sludge GB (Collection of fat) (cholesterol, bilirubin)

and one or more of the following:

① thickening of the wall of GB $> 2-4$ mm

② Peri cholecystic fluid $\rightarrow$ Perforation
 $\hookrightarrow$ exudate.

③ Air in GB (hint to gangrene)

④ Murphy sign U/S (Pain when Push the Probe to GB not related to breathing)

* Symptoms of biliary Dz

Abd Pain - Jaundice, Nausea and vomiting
anorexia, fever, chills, Fatigue

tea colored urine - clay colored stool



X-ray show GBS



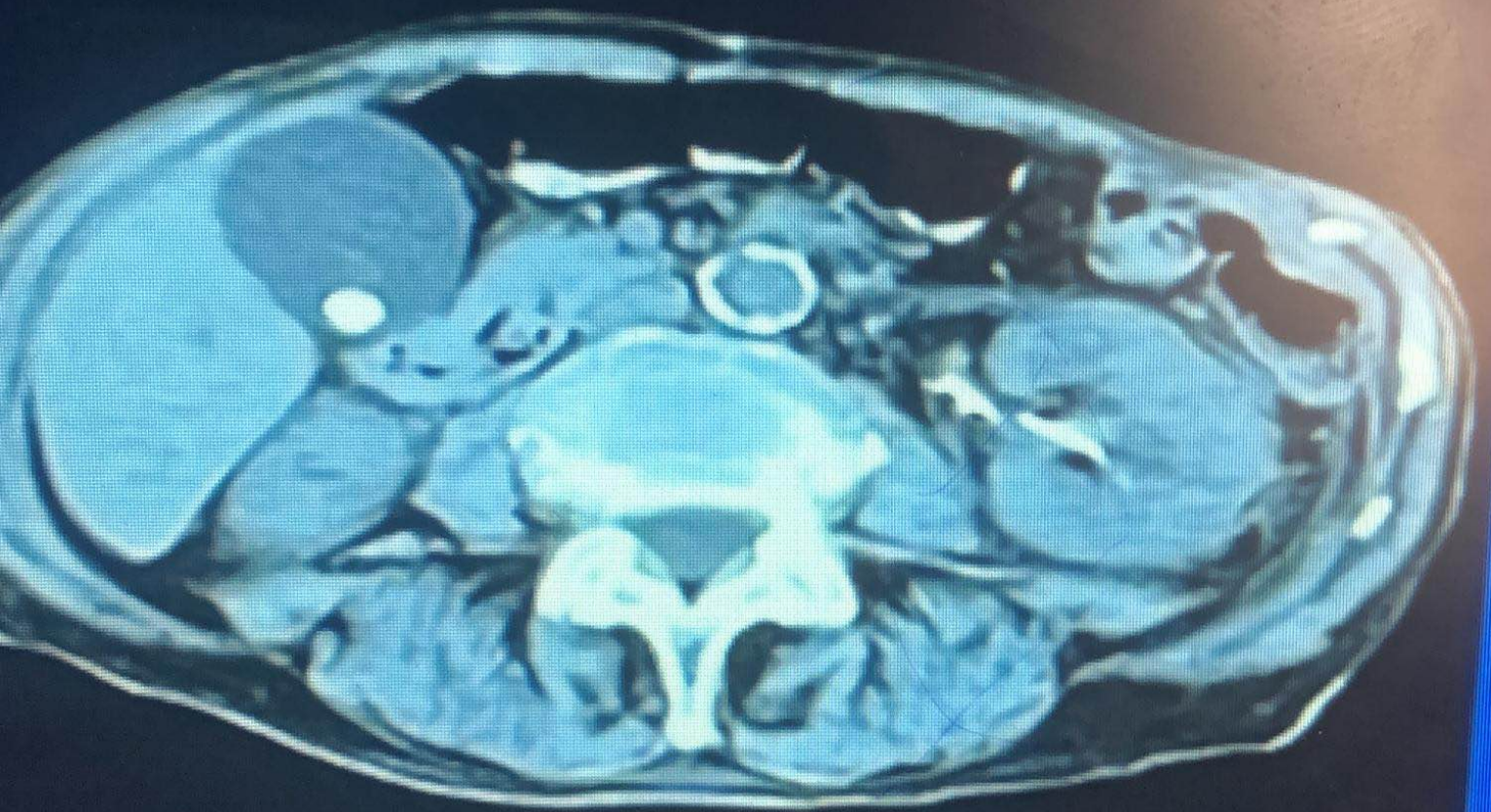
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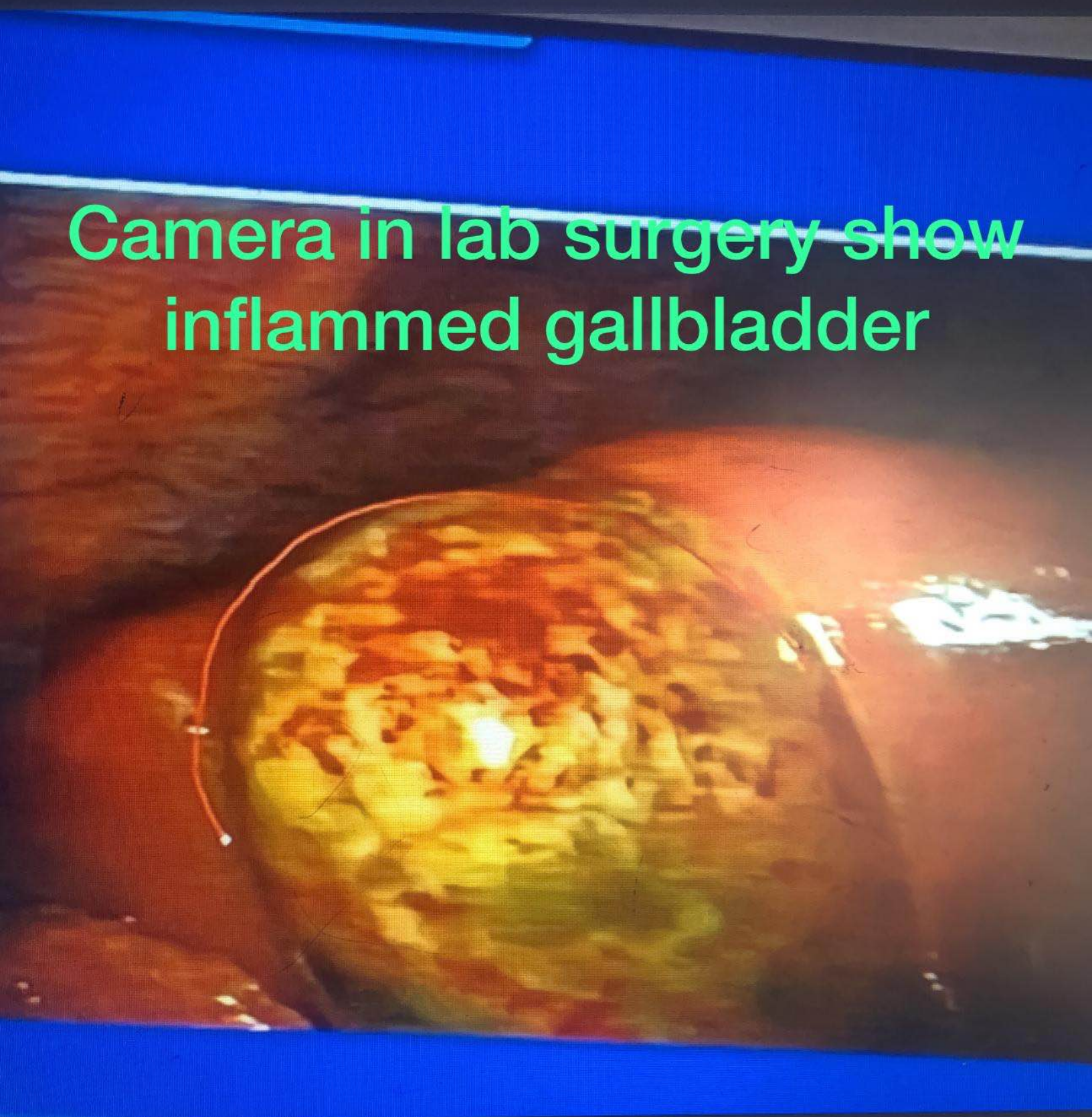




CT show GBS



Camera in lab surgery show
inflammed gallbladder



- the best time for do surgery in AC?
- in the week of admission
- or after 6- ~~month~~ weeks
- X ~~get~~ CL, it ~~subside~~ not X
- with adhesions ~ 10 ~ 20

* What's the most organism to AC?

E. coli

Ht. third G. of cephalosporin

Ceftriaxone

- Symptoms may be absent or Muted in?

DM, obese, Immuno compromised

On steroid, Change of level of consciousness

(complicated by ~~low~~ deep sleep ~ 10%)

CBD stone

Primary

في كيس -

10%

Secondary

تحت المرارة

في الكبد

90%

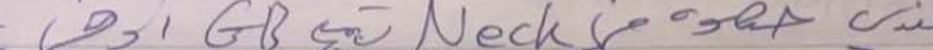




of cholesteryl

- What is Mirizzi syndrome: 1%

Stone in the cystic duct or in GB neck that causing compression in the hepatic duct and biliary obstruction.

cystic duct 
 hepatic duct

what ↑ risk of GB cancer?

⑤ Porcelain GB (مُصَفَّاةٌ بِالسَّوْفِ)

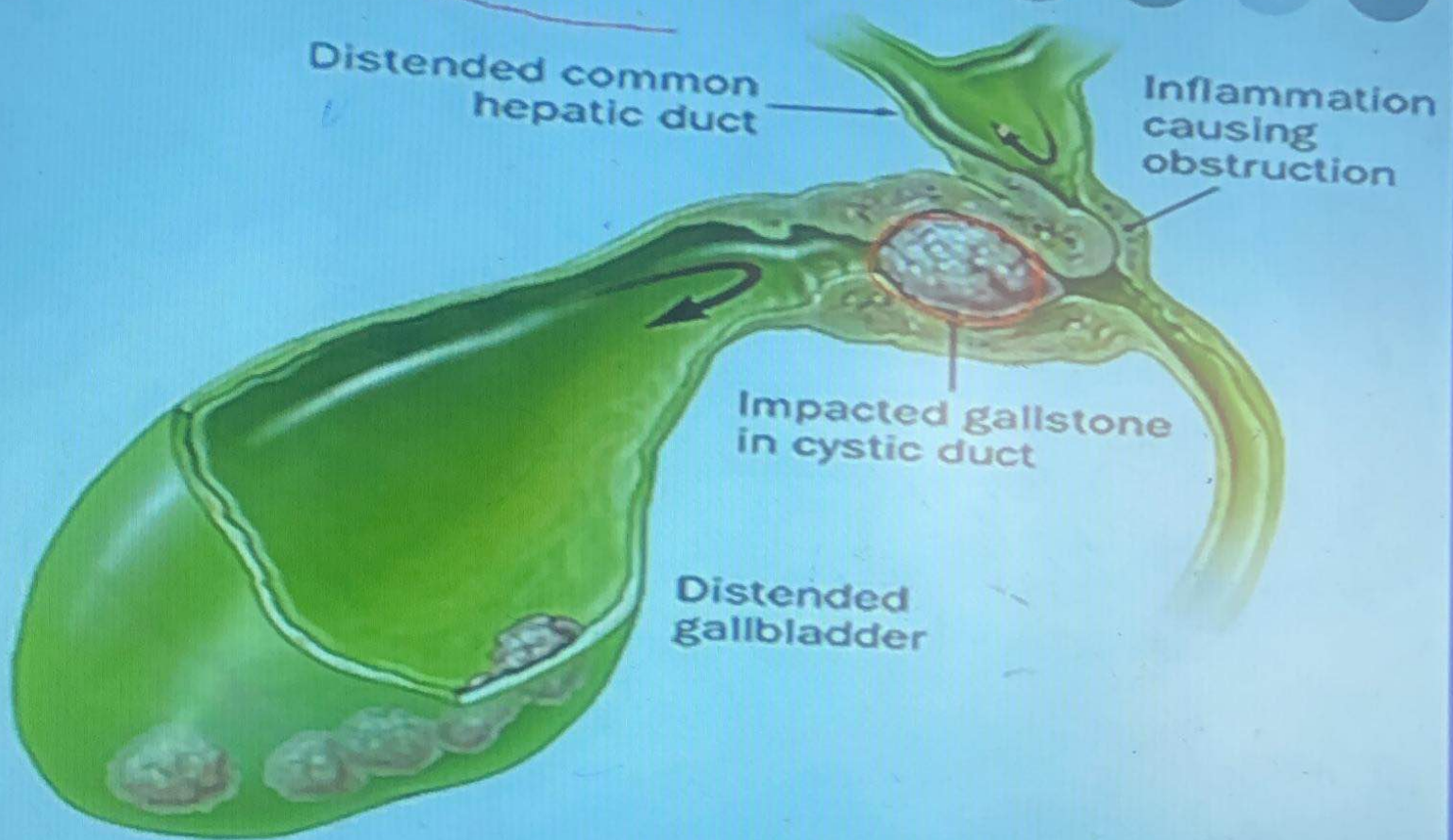
② Stones $> 3\text{ cm}$

③ family Hx of GBC.

④ Bariatric surgery (Sleeve)



MIRRIZI's syndrome



* When we see Air fluid level in GB ?
 what the most likely Dx?

Emphysematous Cholecystitis
 and need Surgery.

* Tumors in biliary tree?

- GB Cancer (the most common) ^{85%}
- Cholangio carcinoma (20%)
- ampullary Ca
- pancreatic tumor

* Prognosis of all these can
 very bad.

and Intrahepatic is more severe
 than extrahepatic

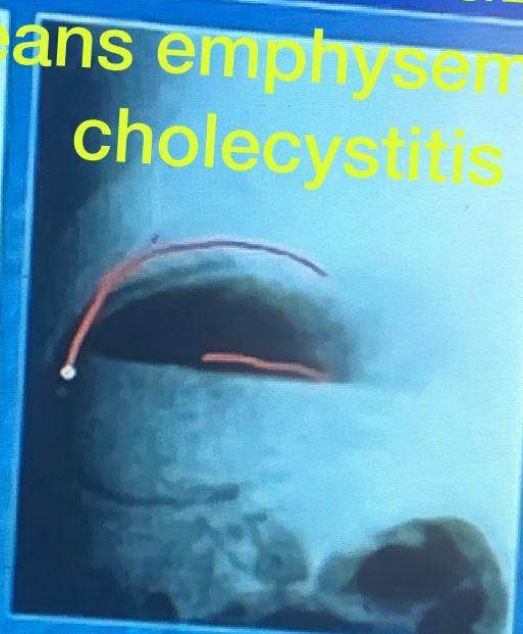
* What is the most common site of
 Cancer in GB? Fundus 80%

foo late ^{و كذا} ^{السرطان} ^{في} ^{الجزء} ^{الأسفلي} ^{من} ^{الكبد}

لايزو Neck ^{الجزء} ^{الأسفلي} ^{من} ^{الكبد}



Air fluid level in GB that
means emphysematus
cholecystitis



What symptoms appear post-Cholecystectomy?

Post-Cholecystectomy Syndrome

(Biliary Colic Pain)

- the most common symptom is diarrhea
secretion of bile

50% of this pain are
non biliary (PUD, HH, IRS)
50% biliary
Diverticular

- biliary dyskinesia

Signs triad?

① Cholecystitis

+

② Hiatus Hernia

③ Diverticulosis

