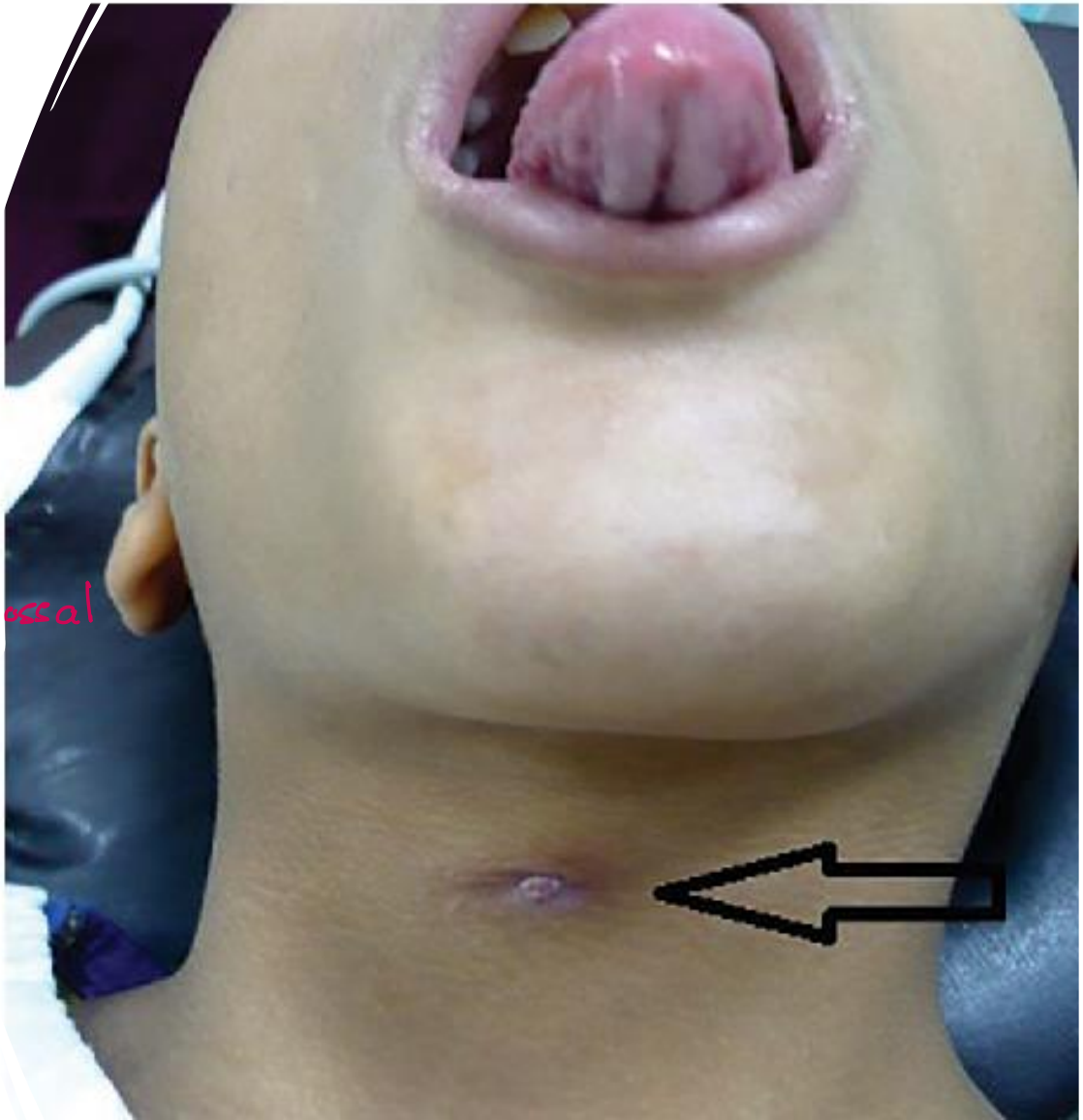
Clinical Discussion by *Dr Mohammed Alsbou*

5-11-2025

الشرح تحت الصورة



History:
12-year-old patient came to the clinic with central neck mass and recurrent infection in this mass. On examination we found that the mass **moves when she protrudes her tongue**.

Q1: what is your diagnosis?
Thyroglossal duct cyst

Pathophysiology of the thyroglossal duct cyst:
The thyroid gland begins to form in the embryo from an area at the foramen cecum (at the base of the tongue). From there, it descends (migrates) down the midline of the neck to reach its final position during its descent, the developing thyroid remains connected to the tongue by a narrow tract called the thyroglossal duct, normally, this duct disappears (atrophies) once the thyroid reaches its final position, if the thyroglossal duct fails to obliterate, the duct will remains.

Q2: mention two complications of thyroglossal duct cyst?
a. recurrent infection
b. risk of malignancy
d. form a fistula

Q3: how to manage this case?
The surgery called **Sistrunk** procedure, it involved removing of duct, cyst and central part of hyoid bone.

History:
A 45-year-old patient came to the clinic. On examination, an incidental thyroid nodule was detected on ultrasound. A fine needle aspiration biopsy (FNAB) was performed, which revealed papillary thyroid carcinoma with lymph node involvement on the left side.
The patient subsequently underwent a total thyroidectomy and left-sided neck dissection.
After 4–5 days, the patient returned with swelling on the left side of the neck upon drainage, the fluid appeared milky in color (see the picture)

Q1: What is the content?
Chyle leak

Q2: Why did this condition occur?
This is a common complication after left-sided neck dissection,
caused by **injury to the thoracic duct**, which is located on the left side of the neck.
Damage to this duct results in leakage of lymphatic fluid (chyle) into the surgical site.

If the neck dissection was done on right side chyle leak will not complicate.

Q3: what is the management?
Conservative
Gide the patient to eats low fat diet.

(Same Patient in the present slide)

Q1. What is the clinical sign shown in the image?
Carpopedal spasm (Trousseau's sign)
Due to hypocalcemia

Q2. Why does hypocalcemia occur after thyroidectomy?
It occurs due to transient ischemia of the parathyroid glands when the inferior thyroid artery is ligated during thyroidectomy.
This temporary reduction in blood supply leads to decreased parathyroid function and low calcium levels.

Q3. What is the arterial blood supply of the parathyroid glands?
The inferior thyroid artery, which arises from the thyrocervical trunk,
a branch of the first part of the subclavian artery.

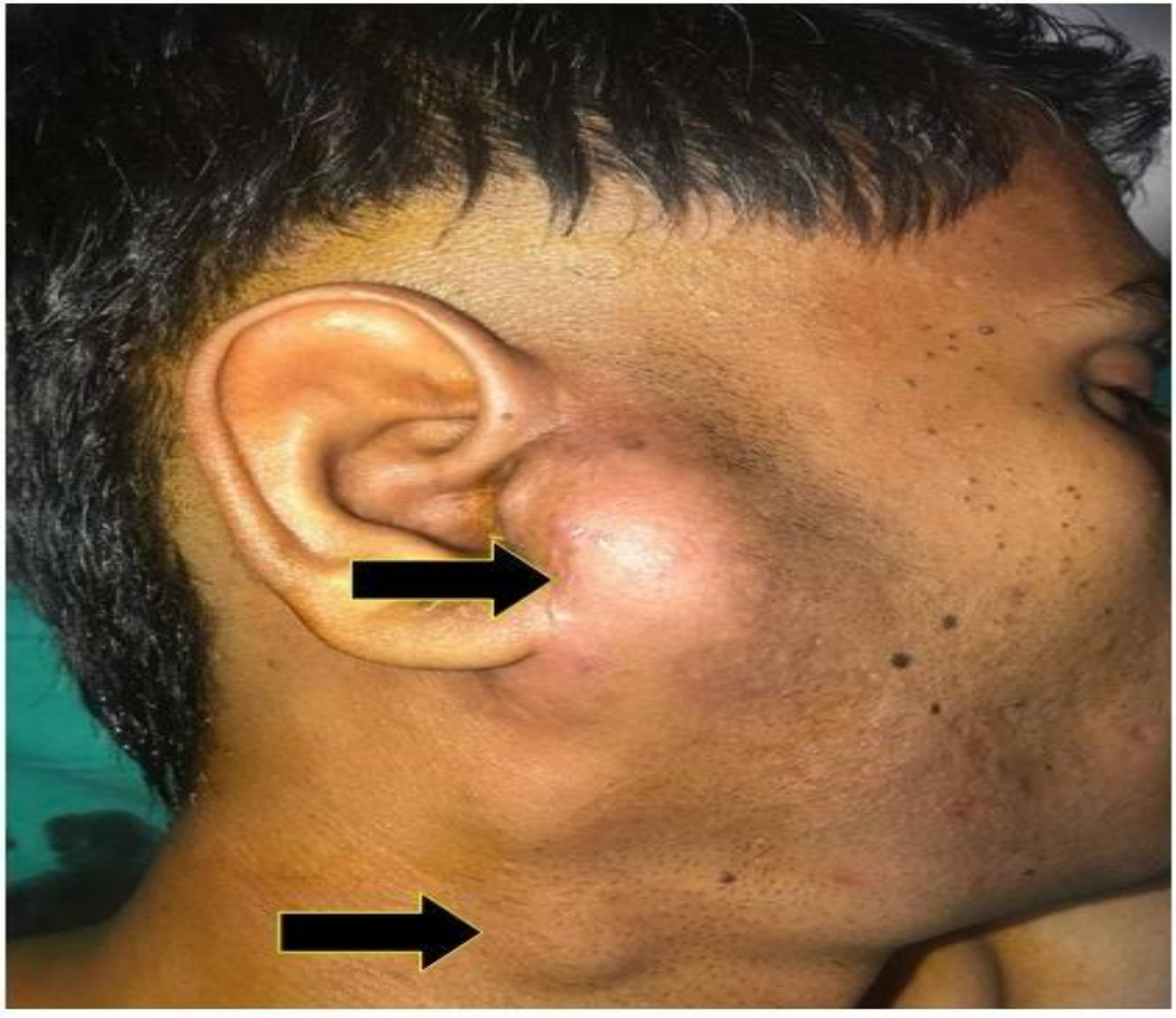
The most common cause of postoperative hypocalcemia after thyroidectomy is transient ischemia of the parathyroid glands.This condition typically lasts for 2–3 days, after about 3 days, the parathyroid glands regain function through angiogenesis (formation of new blood vessels).

Q4. How does the parathyroid hormone (PTH) work?
PTH regulates calcium homeostasis in the body by acting on three main organs:

1. Gastrointestinal tract (GI):
Increases calcium and phosphate absorption indirectly by stimulating vitamin D activation.

2. Kidneys:
Increases calcium reabsorption
Increases phosphate excretion

3. Bones:
Stimulates osteoclast activity, leading to release of calcium and phosphate into the bloodstream.



A 32-year-old patient presented to the clinic.

Q1. What is the mass shown in the image?
Parotid mass and neck mass

Q2. What is the differential diagnosis for a parotid mass?
1. Neoplasm (tumor) – benign or malignant
2. Sialolithiasis (salivary gland stones)
3. Infection (e.g., viral or bacterial parotitis)
4. Lymph node enlargement

Q3. What are the salivary glands?
1. Parotid glands – the largest, located in front of the ears.
2. Submandibular glands – located beneath the mandible.
3. Sublingual glands – the smallest, located under the tongue.

Note:
The smaller the salivary gland, the higher the risk that a mass in it is malignant (i.e., malignancy risk ↑ as gland size ↓)

Q4. What is the most common parotid tumor?

Benign > Pleomorphic adenoma

Malignant > Adenoid cystic carcinoma

Q5. Infection of the parotid gland (Parotitis):

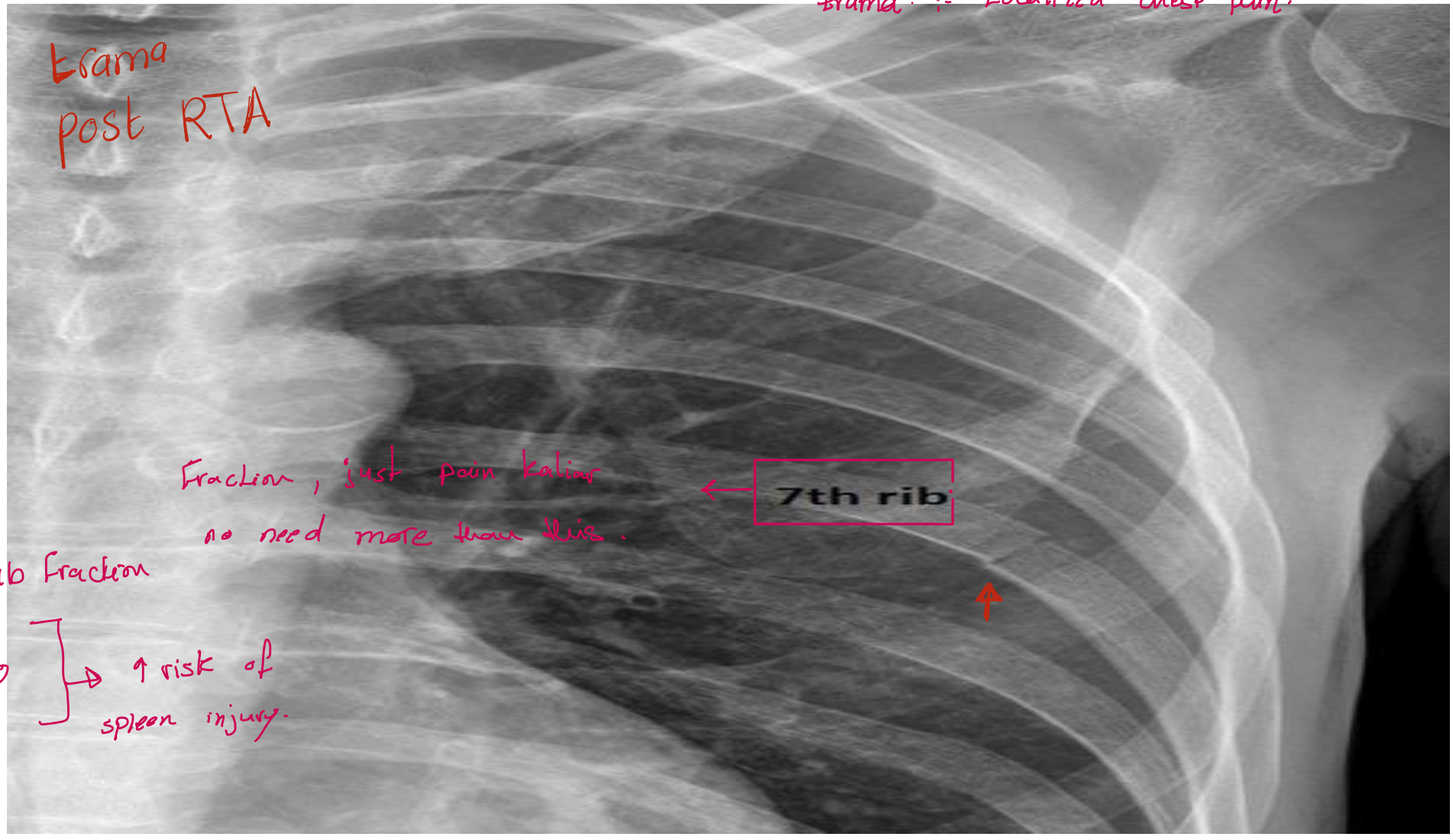
Most common cause: Mumps (a viral infection), but it can also be bacterial.

Q6. Name of the salivary glands ducts:

Parotid gland duct > Stensen's duct

Submandibular gland duct > Wharton's duct

Sublingual gland duct > Rivinus' ducts (minor) & Bartholin's duct (major)


trauma. :- Localized chest pain.
trauma
post RTA
Fraction, just pain killer
no need more than this.
7th rib
rub fraction
9
10
11
↑ risk of
spleen injury.

Management of Rib Fracture:

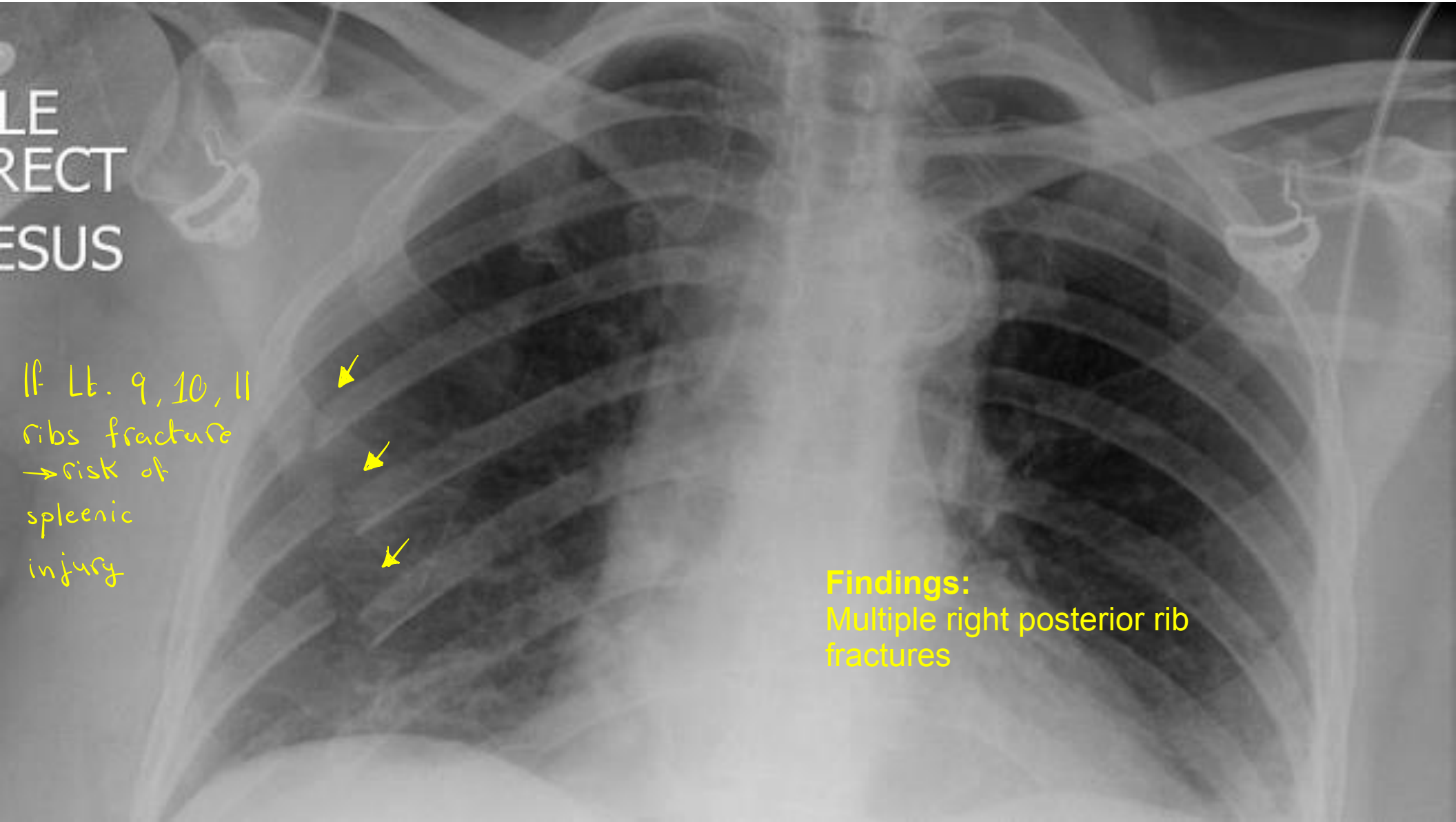
a. Single Rib Fracture:

If only one rib is fractured, and the patient is young with no comorbidities,
→ the patient can go home with pain analgesia to ensure proper respiration.

(pain may cause shallow breathing → risk of atelectasis → stasis → bacterial growth → pneumonia)

b. Multiple Rib Fractures:

→ the patient should be admitted to the hospital for pain management.


LE
RECT
ESUS
If Lt. 9, 10, 11 ribs fracture → risk of spleenic injury
Findings:
Multiple right posterior rib fractures

Flail chest: more than 2-3 ribs are fractured in two or more places

↓

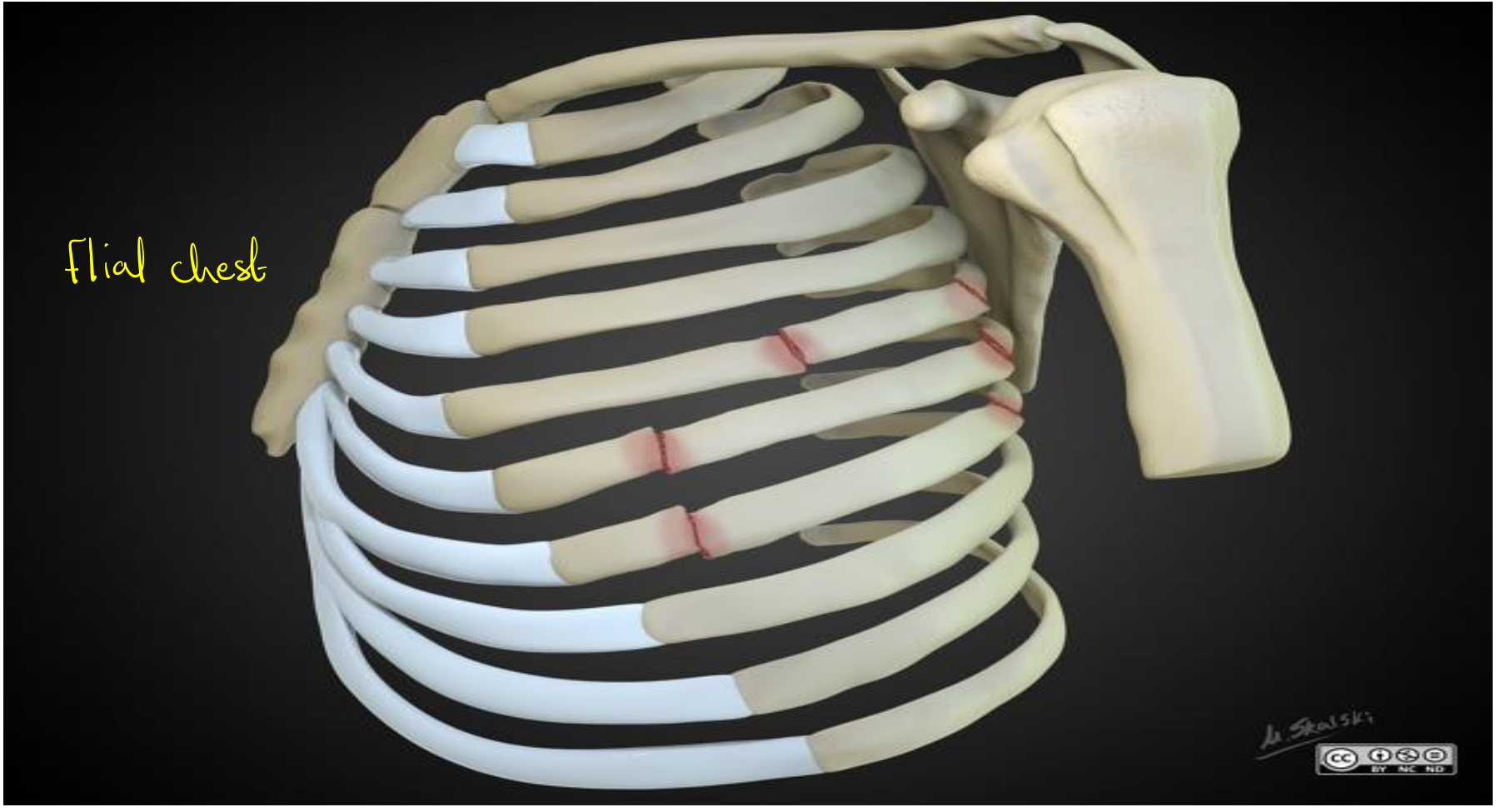
paradoxical movment during respiration :

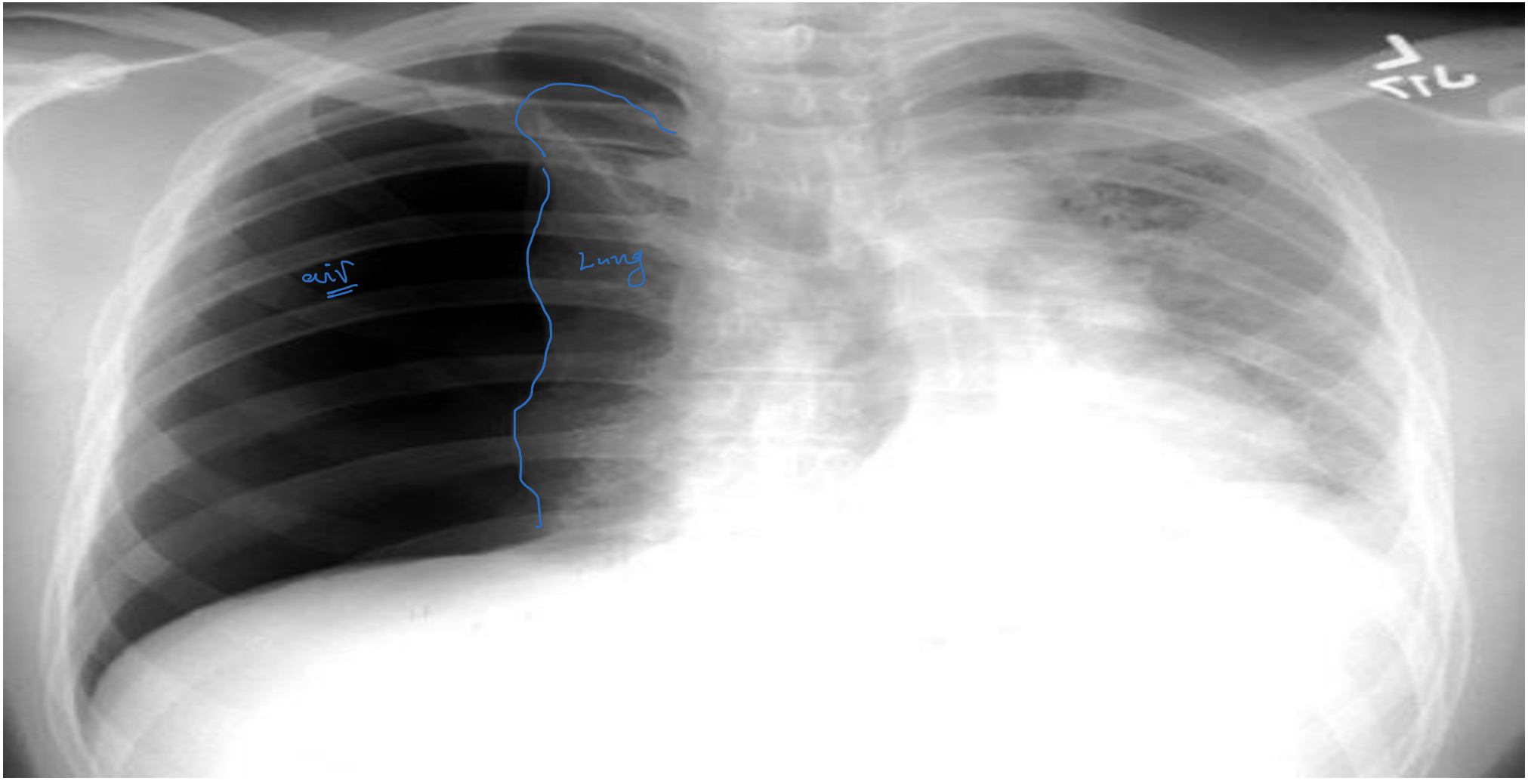
when inspiration :- ribs inward

expiration :- ribs exward

Flail chest may results in Lung Contusion due to paradoxical movement that cause injury to the lung > admit the patient to the hospital

In rare conditions patients may need fixation of ribs in orthopedic department, but usually the management is conservative.


Flial chest


air
Lung

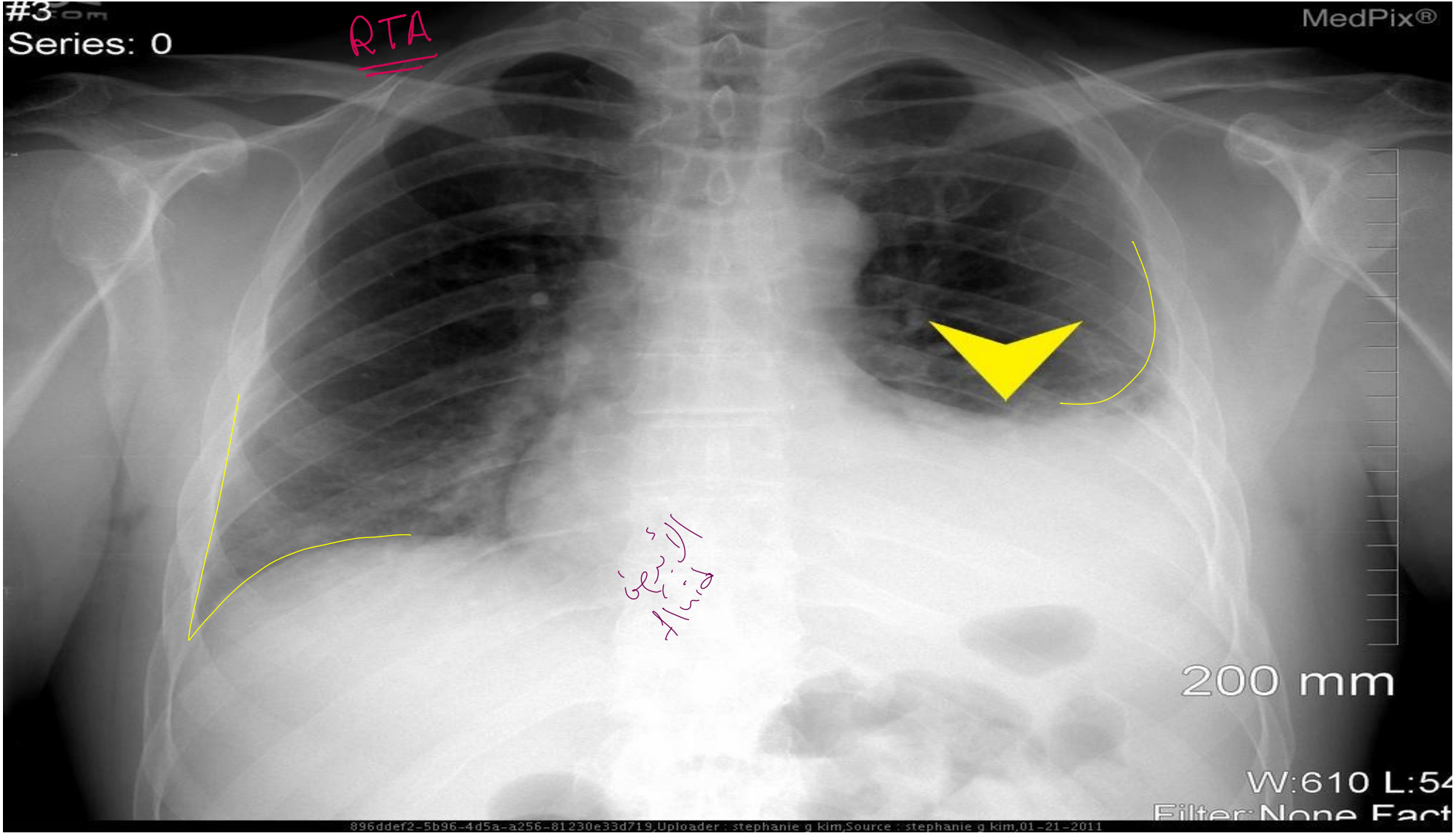
History:
A patient came to the emergency department following a pedestrian trauma.
The patient complained of shortness of breath.

Examination Findings:
- Decreased air entry on the right side
- Hyperresonance on percussion
- Distended neck veins
- Tracheal deviation

Q1: What is the diagnosis based on the chest X-ray?
Tension pneumothorax.

Q2: Why should we avoid doing a chest X-ray immediately?
Because the patient may develop obstructive shock and then cardiac arrest.
Therefore, tension pneumothorax is diagnosed clinically rather than waiting for imaging.

Q3: What is the management? Immediate chest tube insertion


#3
Series: 0
RTA
MedPix®
200 mm
W:610 L:54
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History:
A 30-year-old patient came to the emergency department after a road traffic accident (RTA).

Examination Findings:
- Decreased air entry on the left side
- Dull percussion note
- Decreased left chest expansion

X-ray Findings:
- Obliteration of the costophrenic angle
- Air-fluid level

Q1: What is the diagnosis?
Hemothorax.

Q2: What is the management?
Chest tube insertion

Chest Tube

Indications for Thoracotomy After Chest Tube in Hemothorax

Q: When should a patient with hemothorax undergo thoracotomy after chest tube insertion?

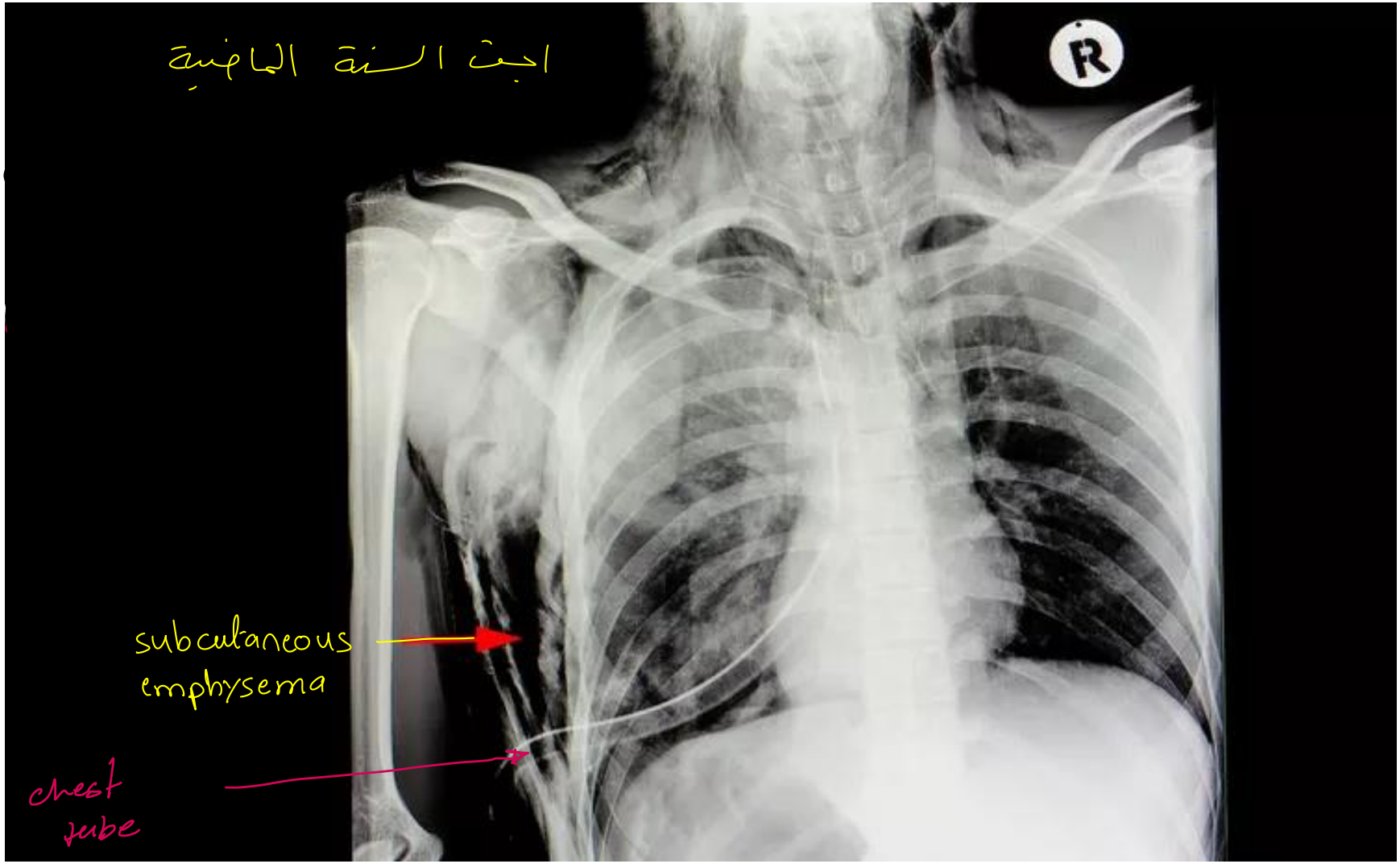
1. drainage of more than 1.5 liters of blood through the chest tube.

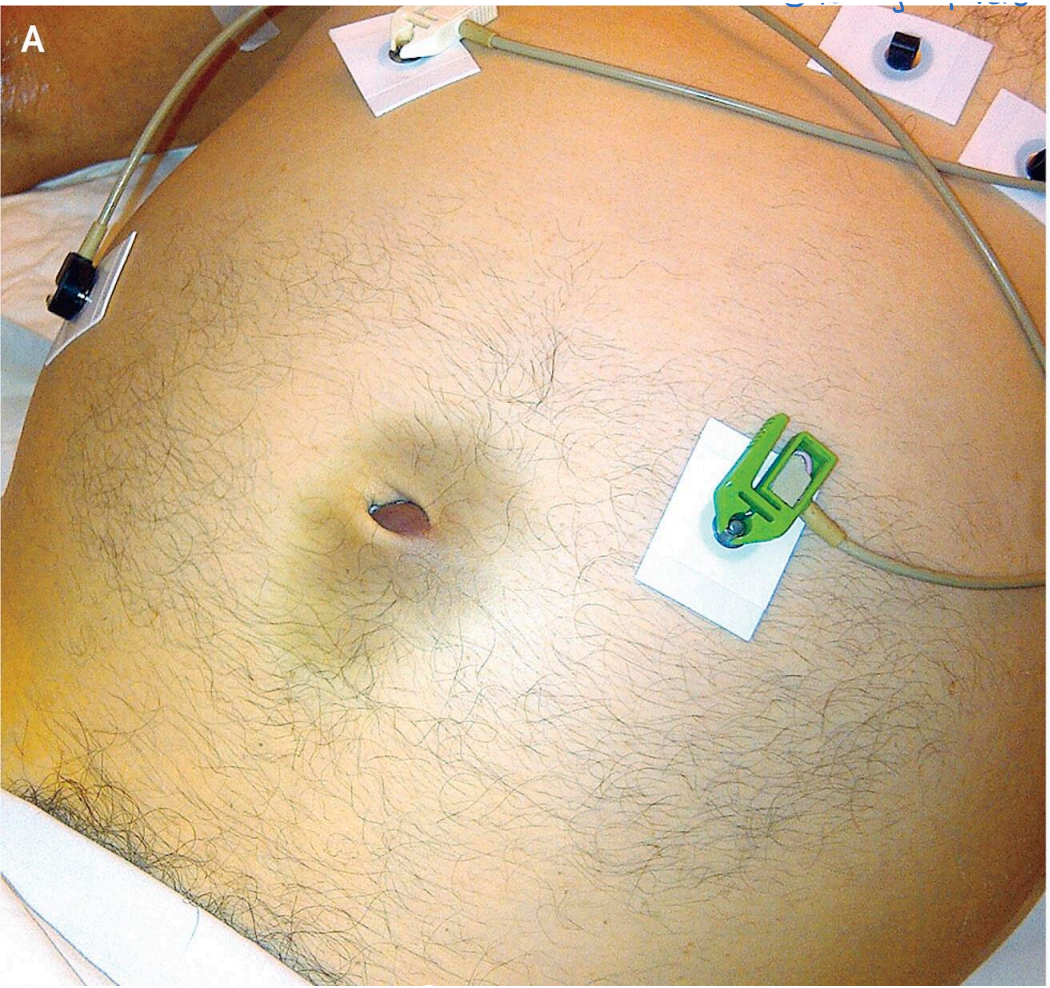
2. Continuous bleeding of more than 200 mL every 2 hours for 4 consecutive hours.

كيف نعرف إن ال chest tube يعمل ؟

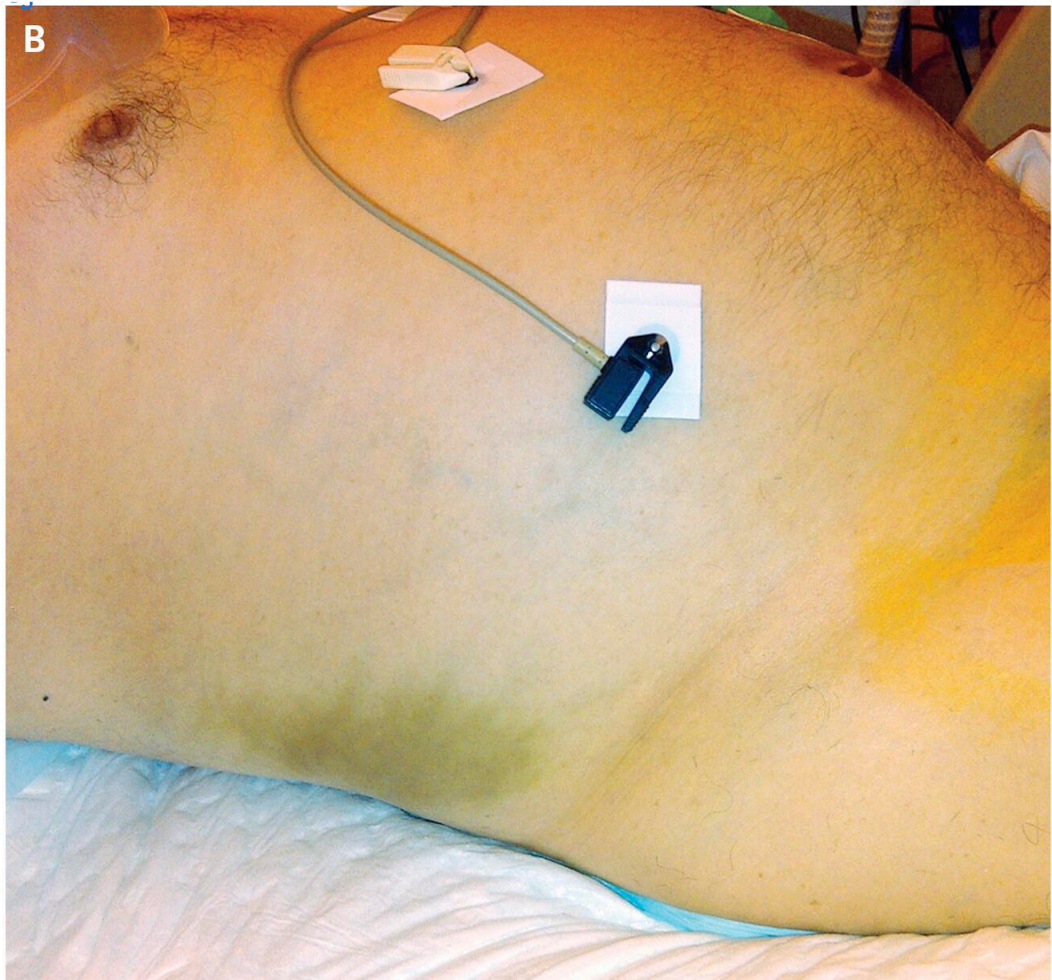
- Oscillation

- Bubbles


اجنحة السنة الماضية
R
subcutaneous emphysema
chest tube



Cullen sign



Grey Turner sign

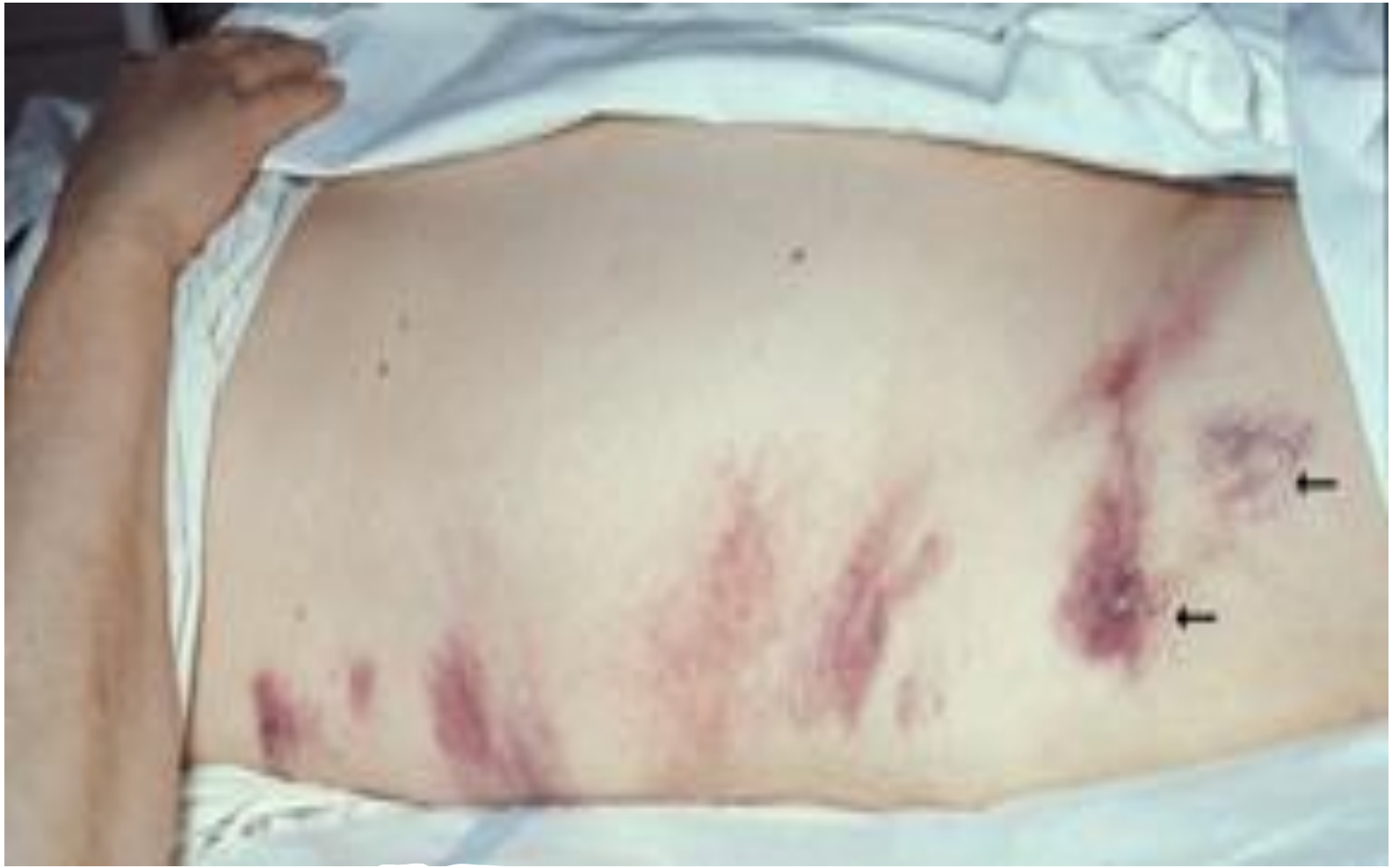
History:
Severe epigastric pain radiated to the back

Q1: what is the spot diagnosis?
Retropertonial hemorrhage (hemorrhagic pancreatitis)

Q2: what is the name of the sign?

Q3: what is the management?
I.V hydration
Give food by **Nasojejunal tube** > bypass ampulla of vater (pancreas rest)

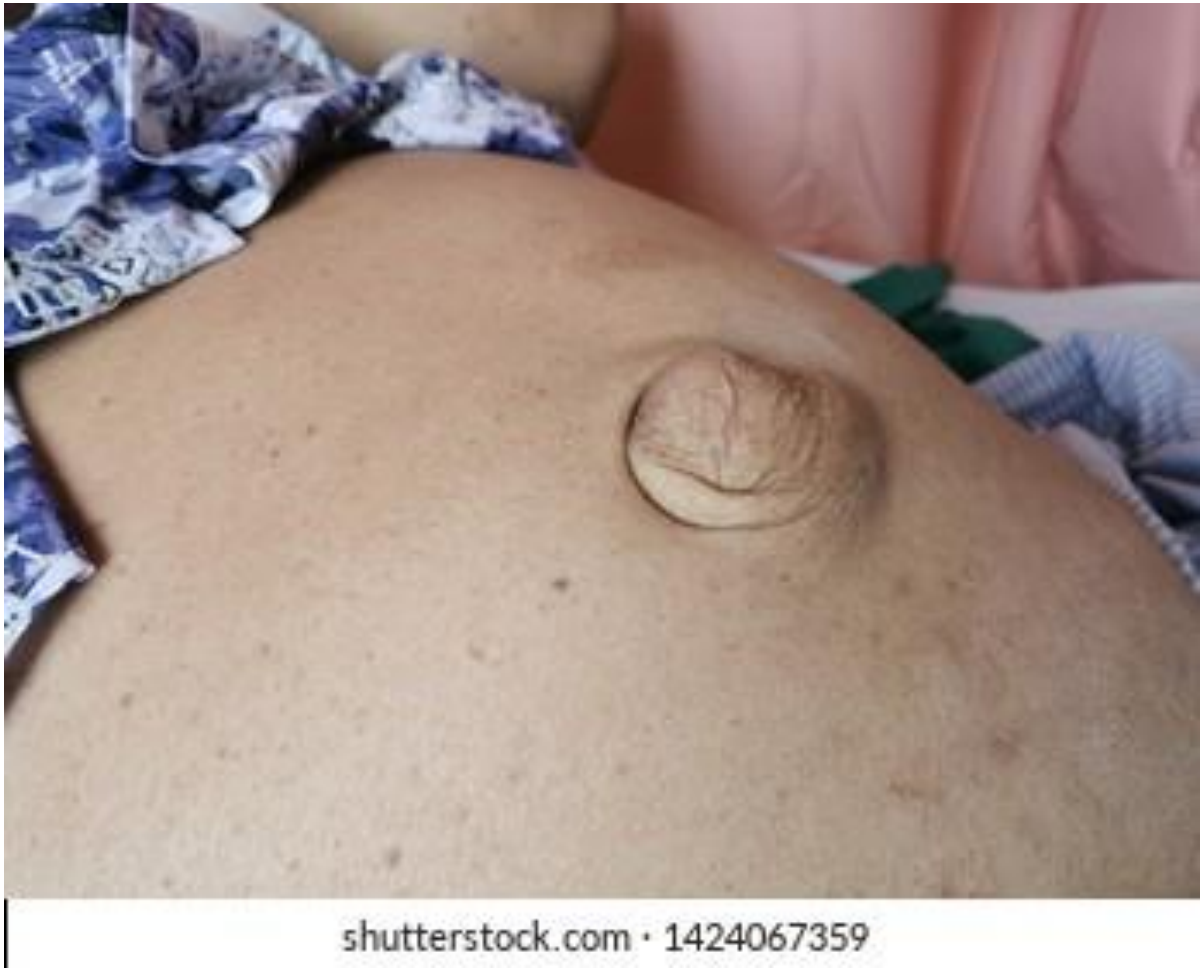
زمان كانوا يخلوا المريض يصوم بس الآن لا
عشان ما يصير atrophy بال large &small bowel
وعشان ما يصير Translocation of bacteria found in bowel to the blood vessels



Fox sign → clinical sign in which bruising is seen over the inguinal ligament.

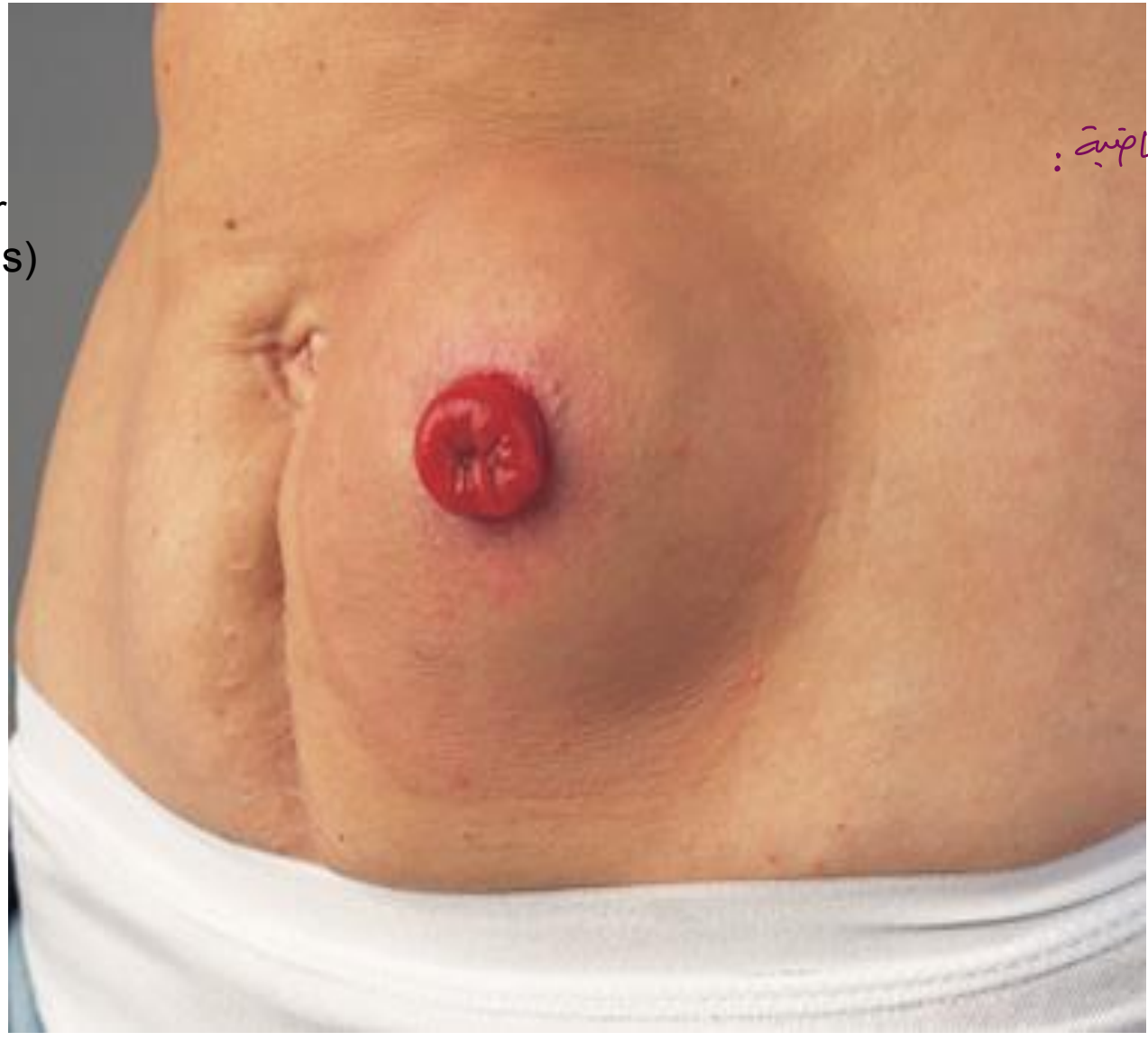
80 years old
Came to the clinic

Uncomplicated



Complicated umbilical hernia (strangulated)
Skin changes, thin skin, bowel gangrene

Q: what is the findings:
- lower midline scar (under the umbilicus)



الأسئلة يلي ← اجبت على الصورة السنة الماضية:

1) what is the name of this structure?

2) mention 2 early complications

3) mention 2 Late complications

هاي الصورة ← ليست Incisional hernia

incisional hernia :
1. Scar
2. Defect in abdominal wall
3. Positive cough impulse

Types of stoma:
a. According to the location:
- ileostomy
- colostomy

b. According to the function:
- decompression stoma
- diversion (protected anastomosis)
- feeding stoma
- drainage stoma

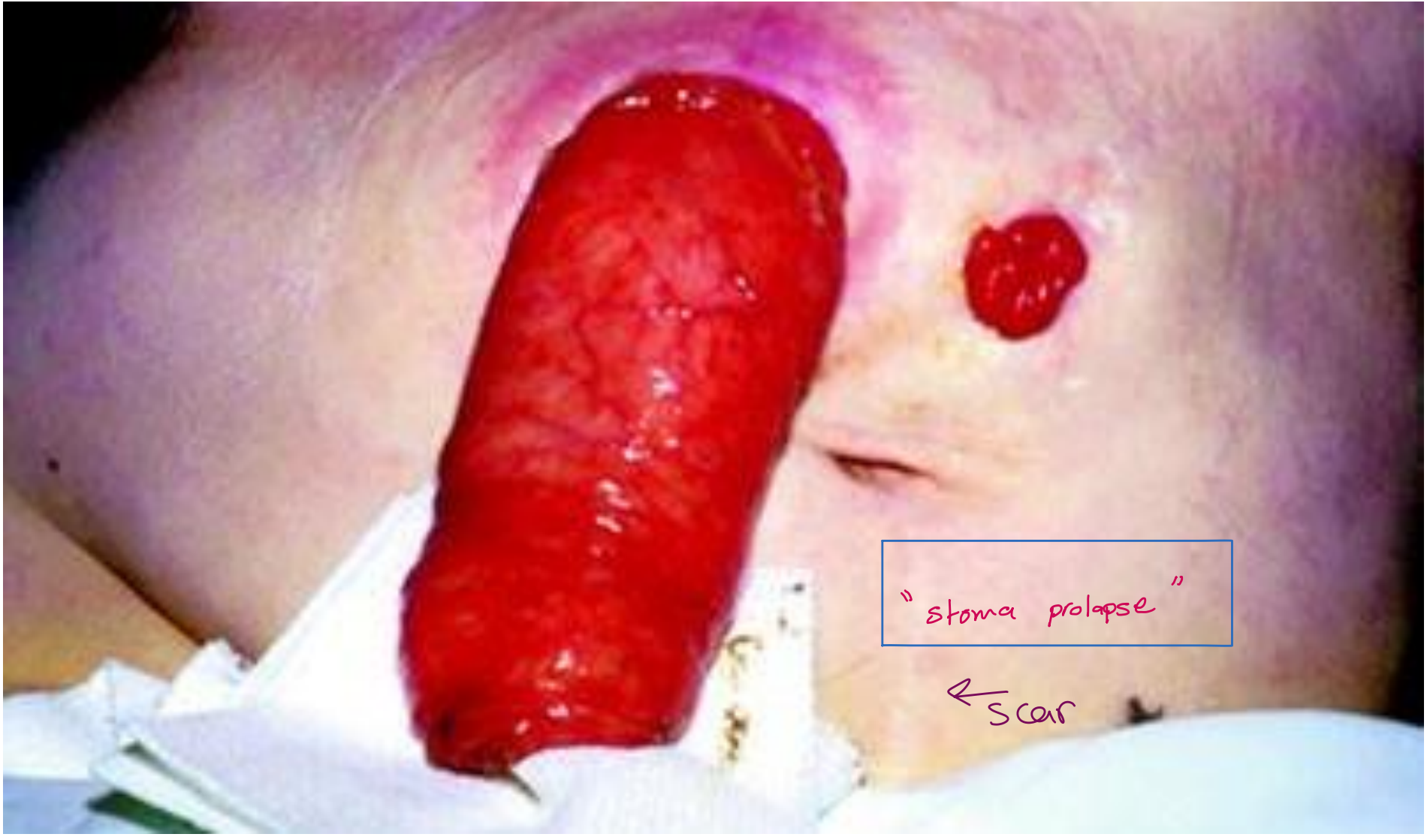
d.

- Temporary stoma

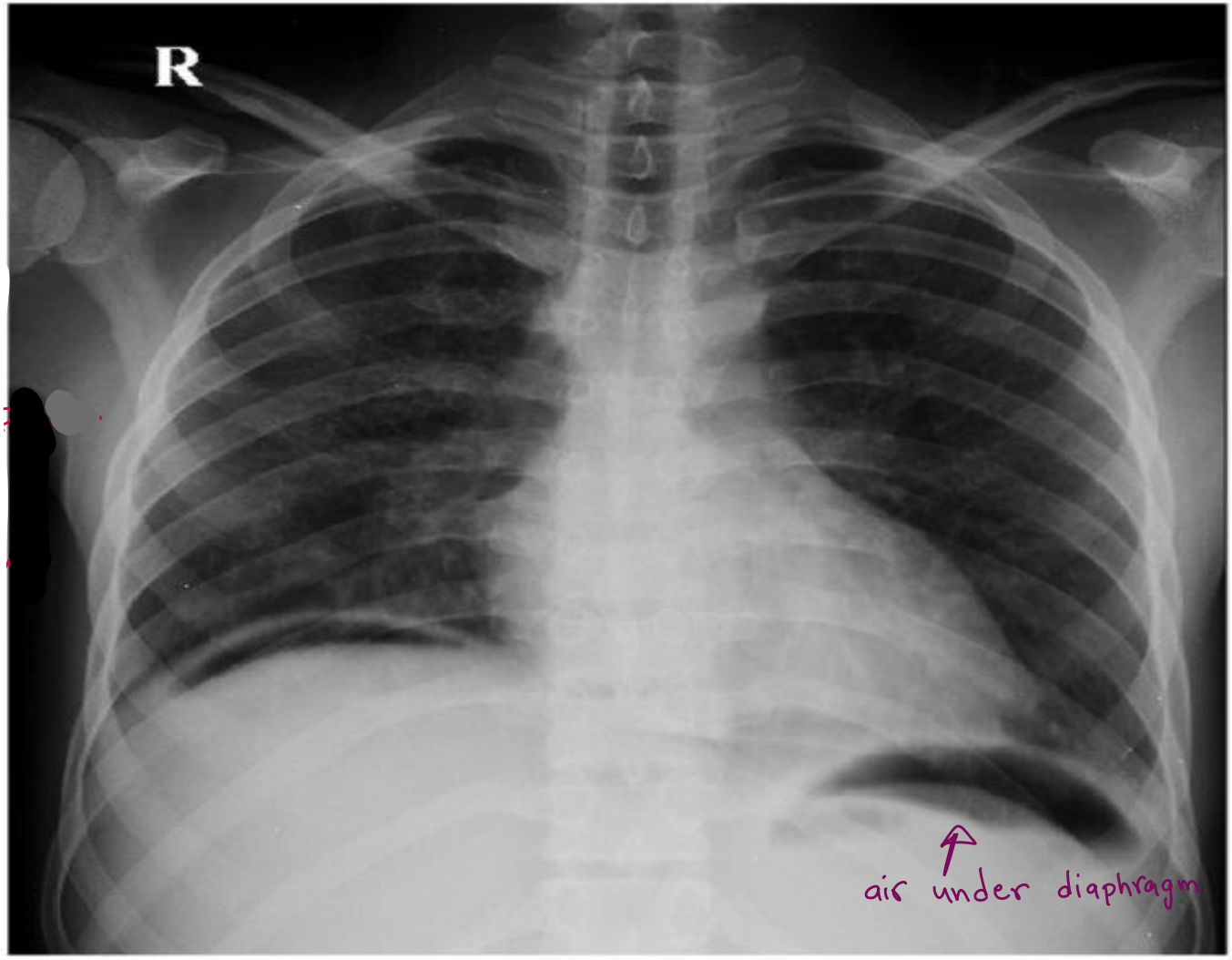
- Permanent stoma

***Early complications of stoma:**
- irritation of skin around the stoma
- dehydration (especially with ileostomy because the stool is liquid) > hypovolemia > acute kidney injury
- ....
- ischemia

***Late completions of stoma:**
- parastomal hernia
- stoma prolapse


"stoma prolapse"
Scar

very common
أنها تيجي سؤال



History:
A 23-year-old patient, heavy **coffee drinker** and **smoker**, presented to the ER shouting with **severe abdominal pain**.

Vital signs:
- Tachycardia
- Hypotension

Abdominal examination:
- Rigid abdomen
- Signs of peritonitis

Q1: What are the findings based on the image?
Air under the diaphragm
Sign of perforated viscus (perforated peptic ulcer)

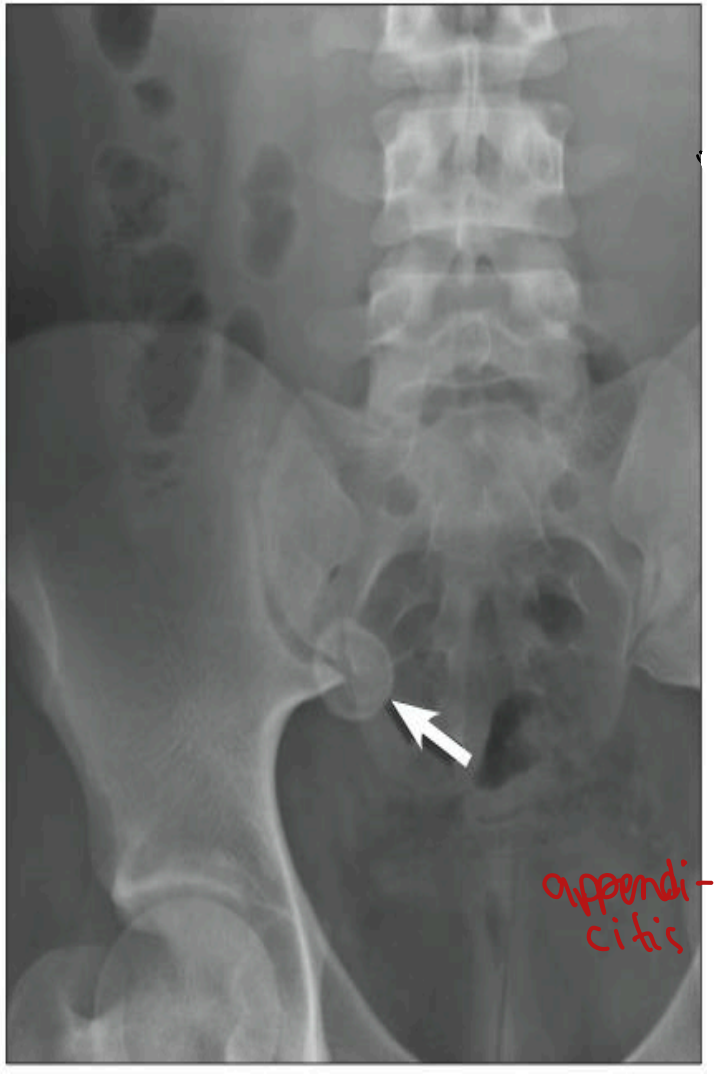
Q2: what conditions can air under the diaphragm appear on X-ray but considered normal?

1. Postoperative (surgery)
after abdominal surgery, air under the diaphragm can be seen for up to 10–14 days and is considered normal if The abdomen is soft, and The patient does not complain of severe abdominal pain.

if the postoperative patient came with severe abdominal pain and on examination has a rigid abdomen, and the X-ray shows air under the diaphragm, this is considered a sign of **bleeding**

2. Chilaiditi's .
a condition in which the transverse colon lies between the liver and diaphragm, mimicking free air under the diaphragm on X-ray.

It is suspected when the patient has no abdominal pain and the abdomen is soft.



← faeculiath.

appendicitis

- adult → faecalith
- child → lymphoadenitis following URTI

History:
A 23-year-old male presented to the emergency department with periumbilical pain that shifted to the right iliac fossa, and tenderness.

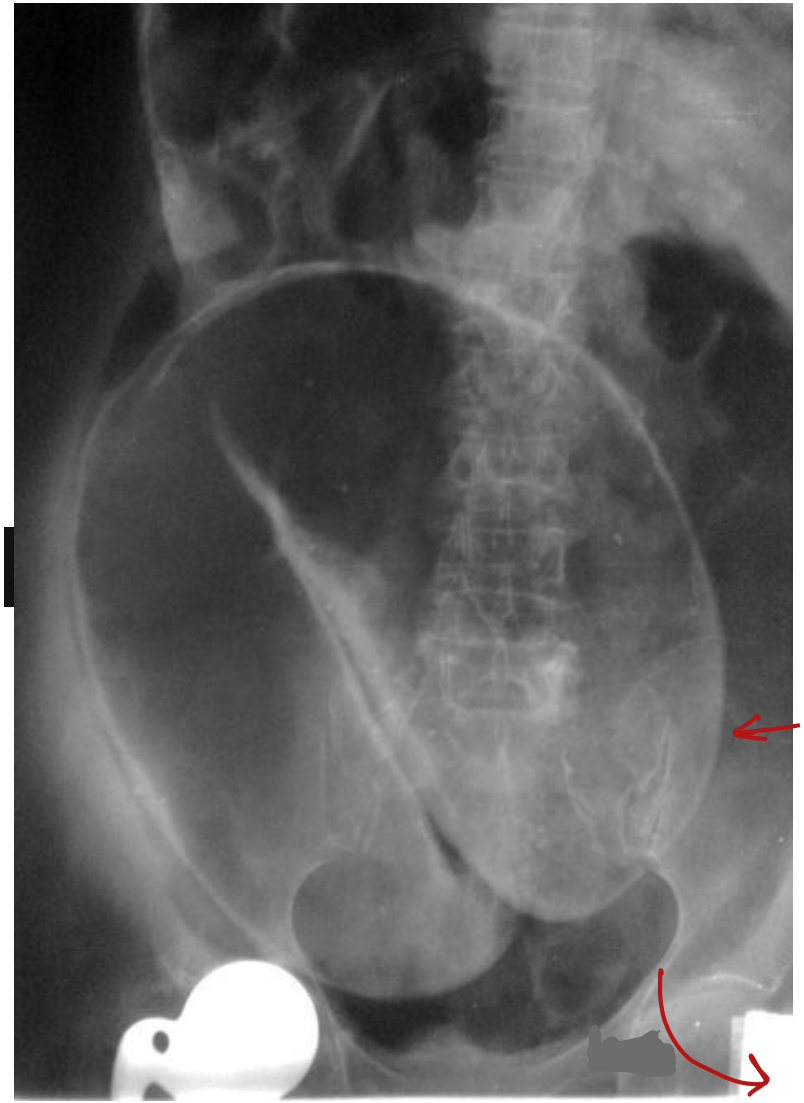
Q1: What is the structure indicated by the arrow in the image?
fecalith: calcified stool.

Fecalith can cause appendicitis in adults but it is visible on X-ray in only about 10–15% of cases.

Cause of appendicitis in children:
lymphadenitis
with a history of upper respiratory tract infection 1–2 weeks prior and find enlargement of lymph nodes around the appendix.

Note:
Visceral pain is felt when distention or ischemia occur

Distention causes periumbilical pain (visceral pain) when the inflammation reaches the peritoneum, the pain becomes localized in the right iliac fossa (somatic pain).



History:
A patient presented to the emergency department with the following symptoms: Abdominal distention, Abdominal pain, Vomiting and Constipation (cardinal symptoms of intestinal obstruction)

Q1: What is the name of the sign shown in the image, and what is the diagnosis?
"Coffee bean sign"
It is seen in cases of sigmoid volvulus: twisting of the sigmoid colon around itself, leading to obstruction.

The obstruction increases pressure, which can compress the veins and then the arteries, causing ischemia and potentially perforation.
Therefore, sigmoid volvulus is a surgical emergency that requires immediate intervention

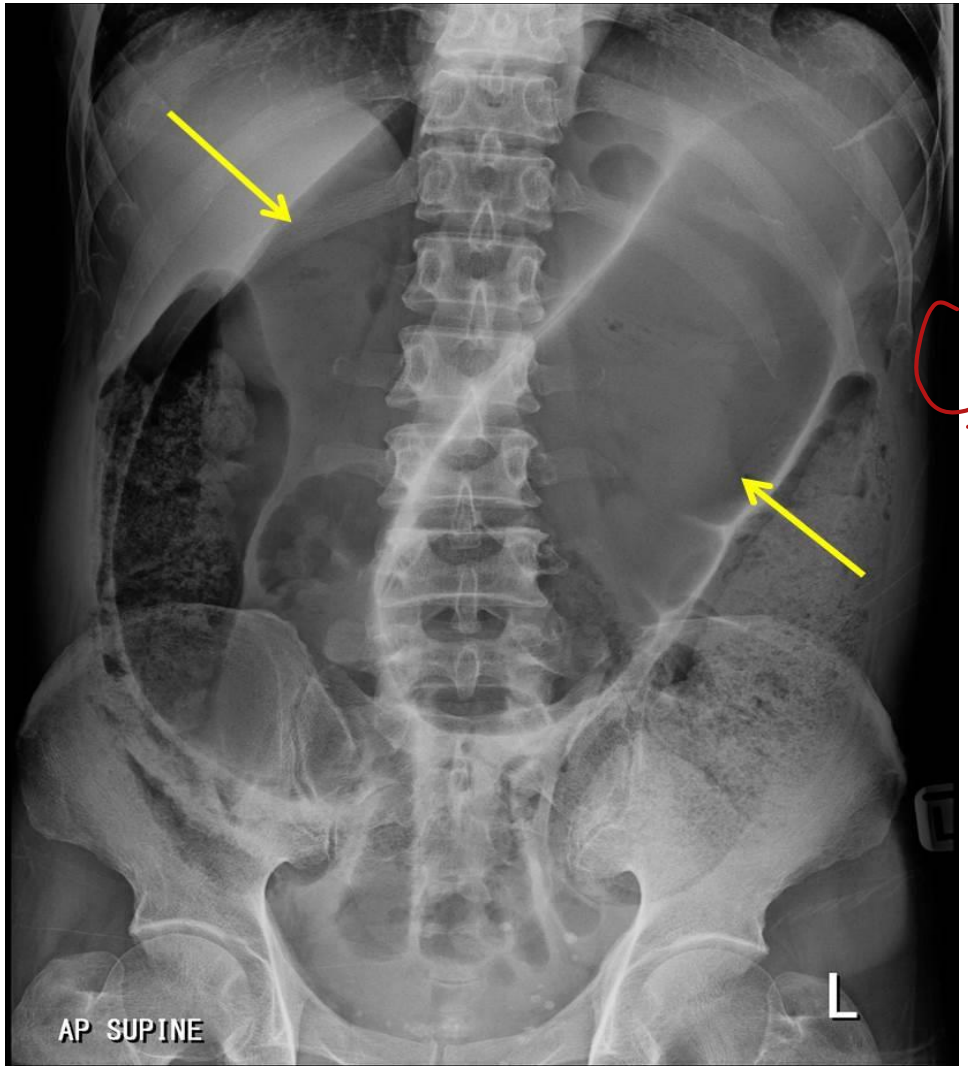
Q2: What is the management?
- Emergency decompression colonoscopy to release the trapped gas in the sigmoid colon.

- Insertion of a rigid rectal tube to prevent recurrence of twisting, as sigmoid volvulus has a high rate of recurrence.

- If the volvulus recurs, sigmoidectomy (surgical removal of the sigmoid colon) is performed.

note:
This condition can occur in other parts of the colon, but the most common site is the sigmoid colon.

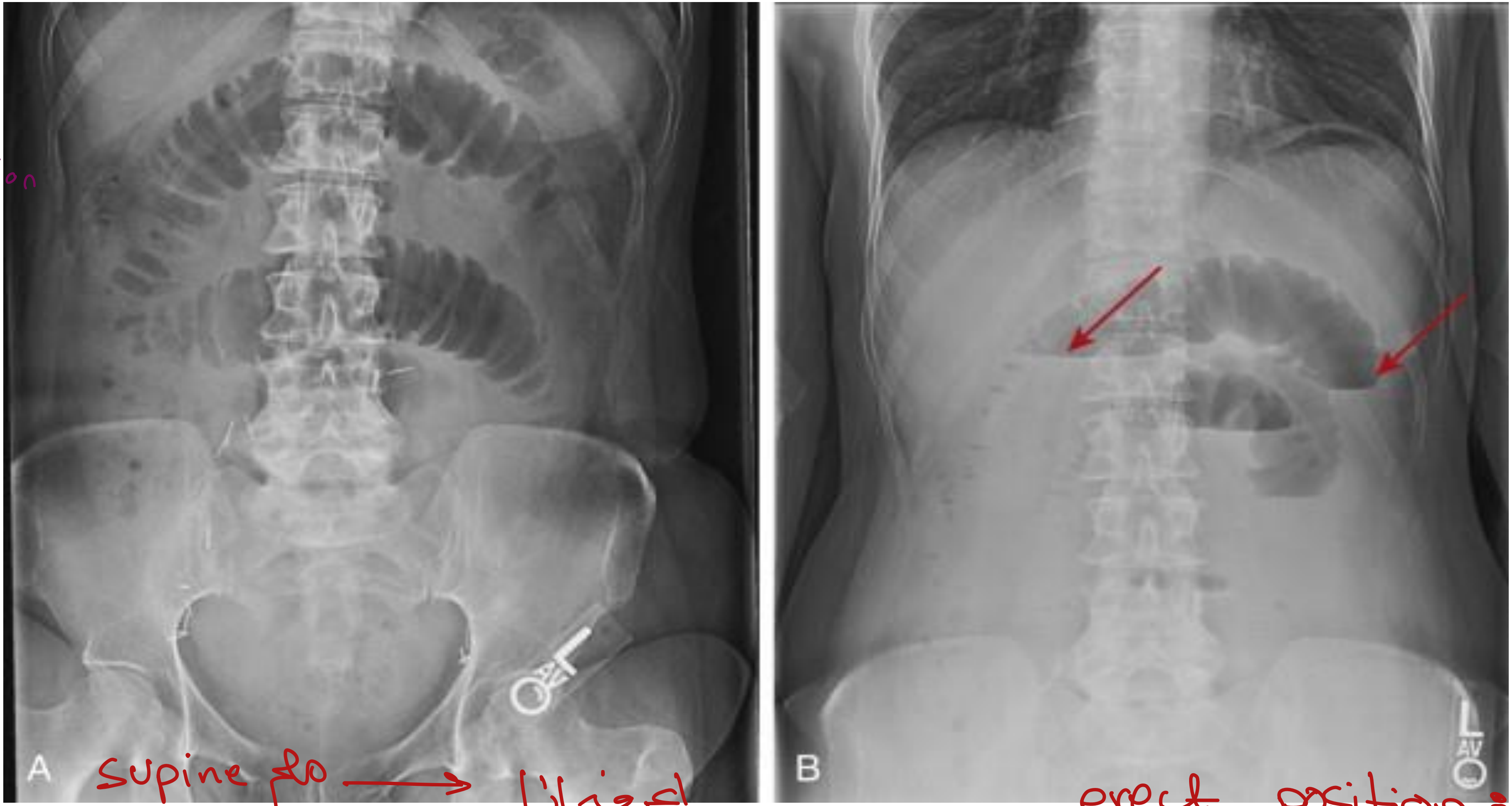
Coffee bean sign



Closed loop

↳ emergency

small
bowell
dilatation



supine pos → اعرفة اذا
small | or | large obst.

erect position:
air fluid lvls

History:
A patient presented to the emergency department with: Paraumbilical pain, bilious vomiting (vomiting with bile, small bowel contents) and constipation

Q1: Based on the images, what are the findings?

Erect abdominal X-ray findings:
Presence of air-fluid levels.

Supine abdominal X-ray findings:
Dilatation of small bowel (more than 3 cm)

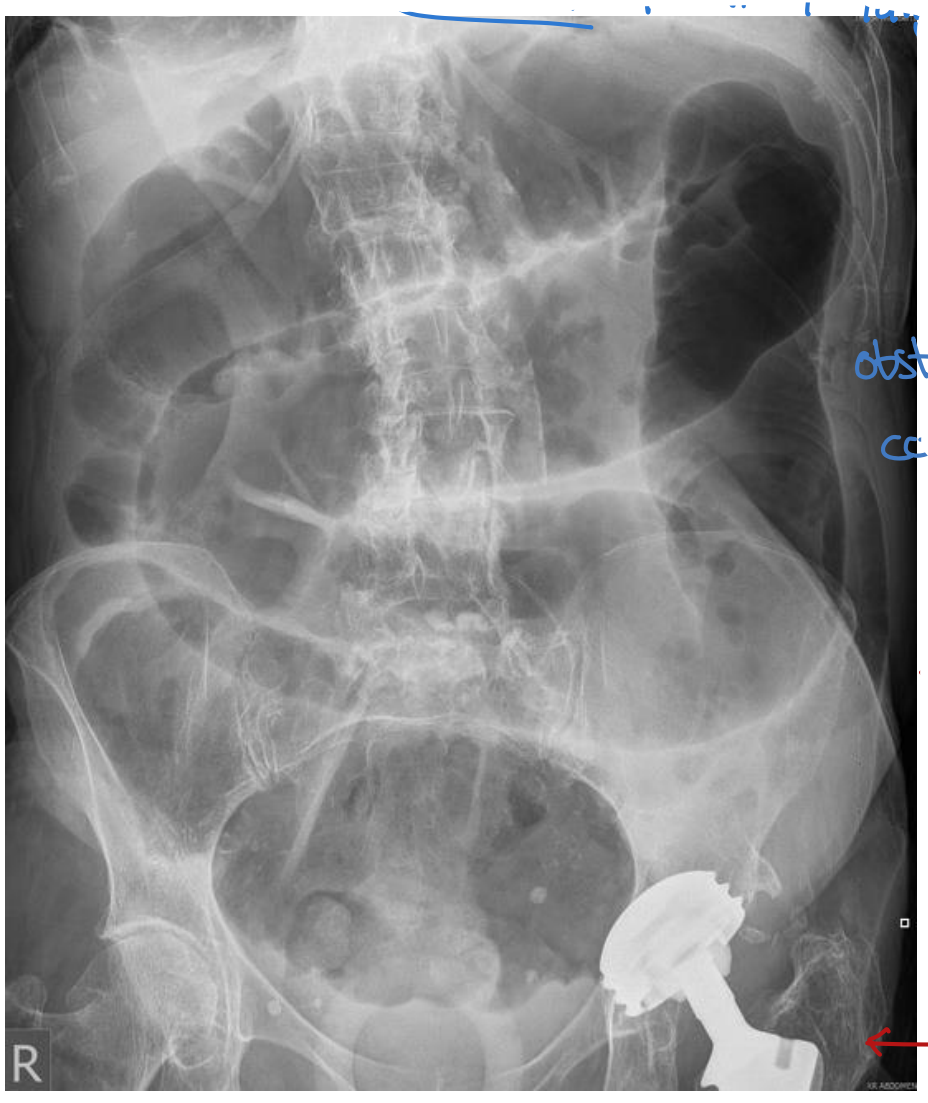
Q2: How do we know that the dilated bowel are small bowel not large bowel?
The small bowel loops are located centrally in the abdomen and have a characteristic “complete ring” (complete circular folds) while the large bowel is more peripheral

Q3: Which imaging position is better if we have to choose between erect and supine abdominal X-rays?
The erect position X-ray can show the presence of obstruction by demonstrating air-fluid levels but cannot localize the site of obstruction.

The supine position X-ray can demonstrate the location of the obstruction by showing whether the dilated loops

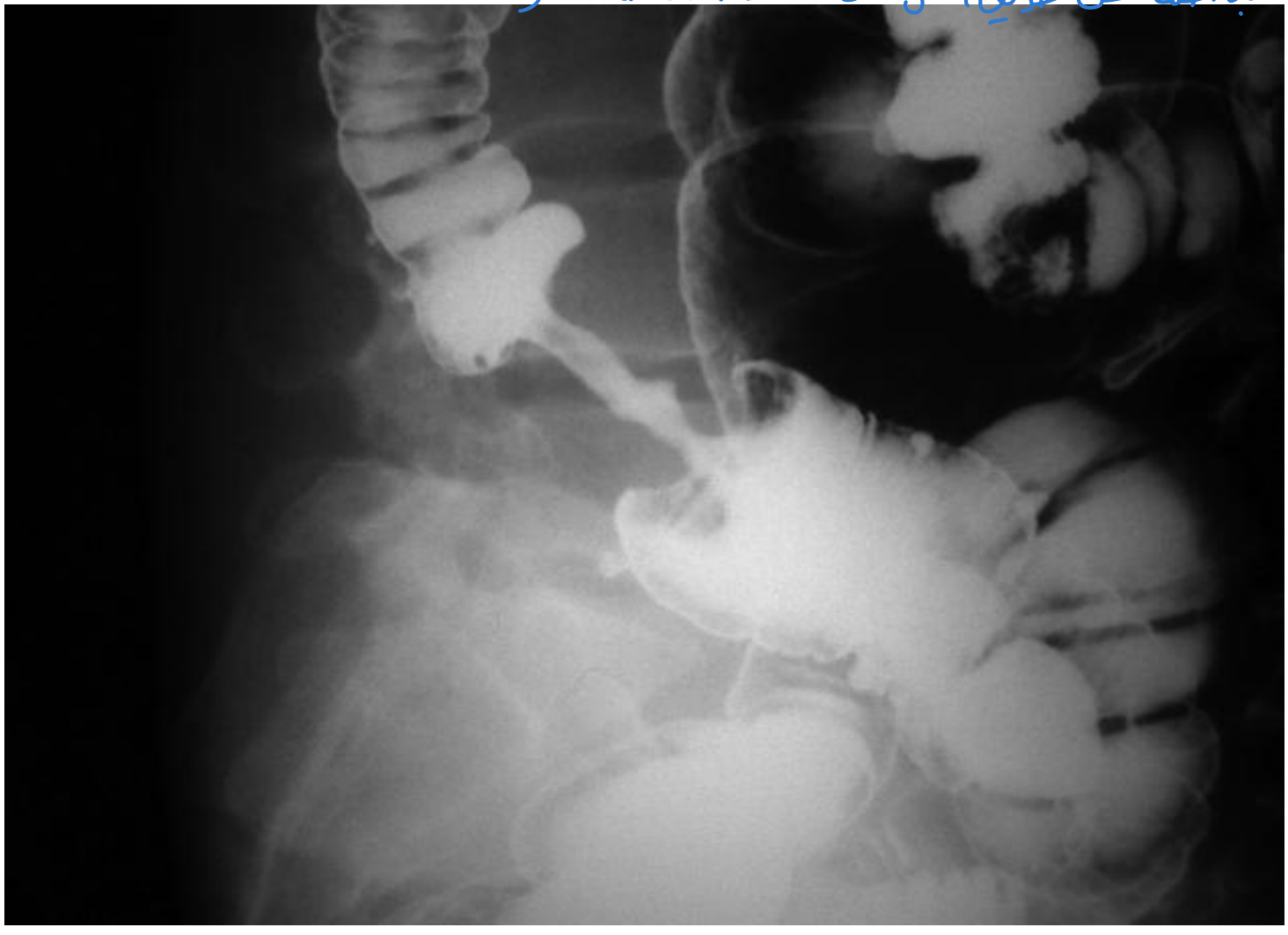
Larg bowel

dilatation



hip joint replacement

Foley's catheter او syringe بنحقنه عن طريق



X-ray ← Barium enema

Rectal Contrast

Apple Core Sign

or napkin ring Sign

Cancer

" Colon Cancer "

History:
A 60-year-old patient presented with bleeding per rectum, tenesmus, loss of weight, loss of appetite, change in bowel habits (alternating diarrhea and constipation) and change in caliber of stool (sometimes in pieces, sometimes thin)

Q1: What are the findings in the image, and what is the name of the sign?
"Apple core sign" This sign is characteristic of **colon cancer**.

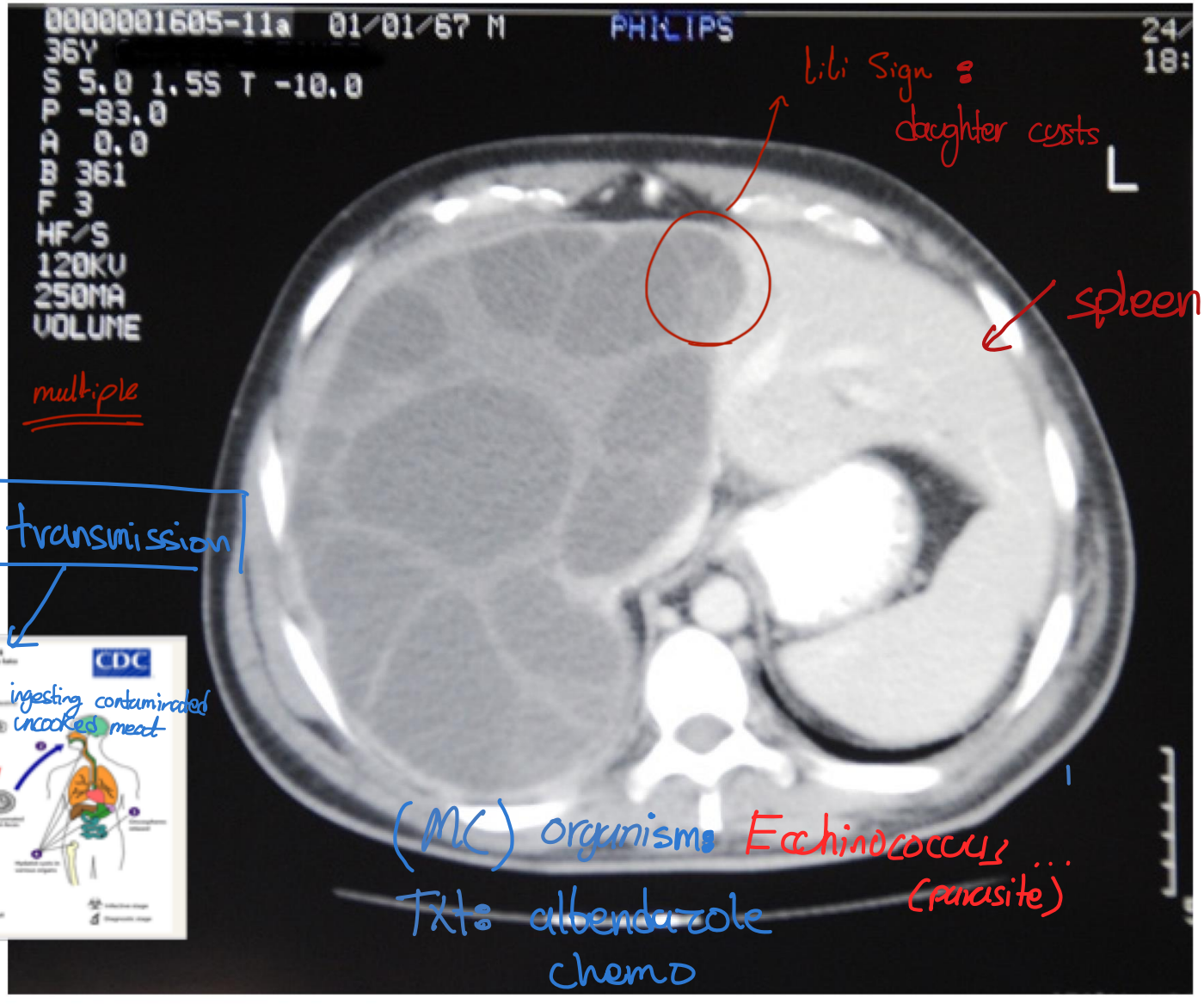
Right-sided colon tumors:
Patients usually present with iron deficiency anemia.
Any patient over 50 years old with iron deficiency anemia should be considered to have colon cancer until proven otherwise.

Left-sided colon tumors:
Patients often present with bowel obstruction.

Q2: Why is obstruction more common with left-sided tumors?
1. The diameter of the right colon (about 9 cm) is larger than the left colon (about 6 cm).

2. The stool in the right colon is liquid, whereas in the left colon it is well-formed.

3. The tumor growth pattern:
Right-sided tumors are often exophytic (pedunculated) while Left-sided tumors are circumferential



Hydatid

Liver disease

↓

Parasite

CT scan

Hx:

he lives in a farm

Symptomes:

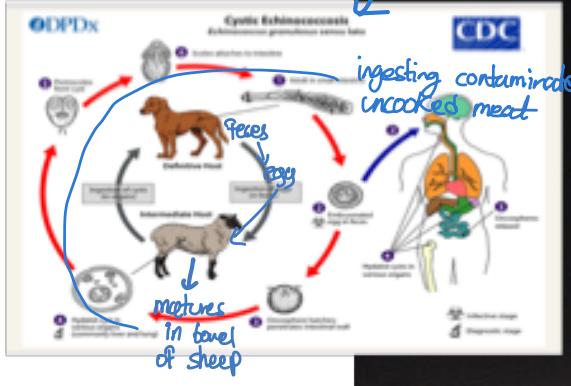
URQ Pain

fever

jaundice

itching

fecal-oral transmission



History:
A patient with a history of farming and sheep exposure presented with right upper quadrant (RUQ) pain and jaundice.

Q1: What are the findings in the imaging?
Multiple liver cysts.
most likely diagnosis based on the history and findings: Hydatid cyst disease.

Q2: Which parasite causes this condition?
Echinococcus granulosus.

***Symptoms the patient might present with:**
- Right upper quadrant pain.
- Jaundice if there is biliary obstruction or communication between the cyst and the common bile duct.
- Anaphylactic shock if cyst rupture occurs.

Q3:What is the management?
Conservative:
Medical treatment with Albendazole.

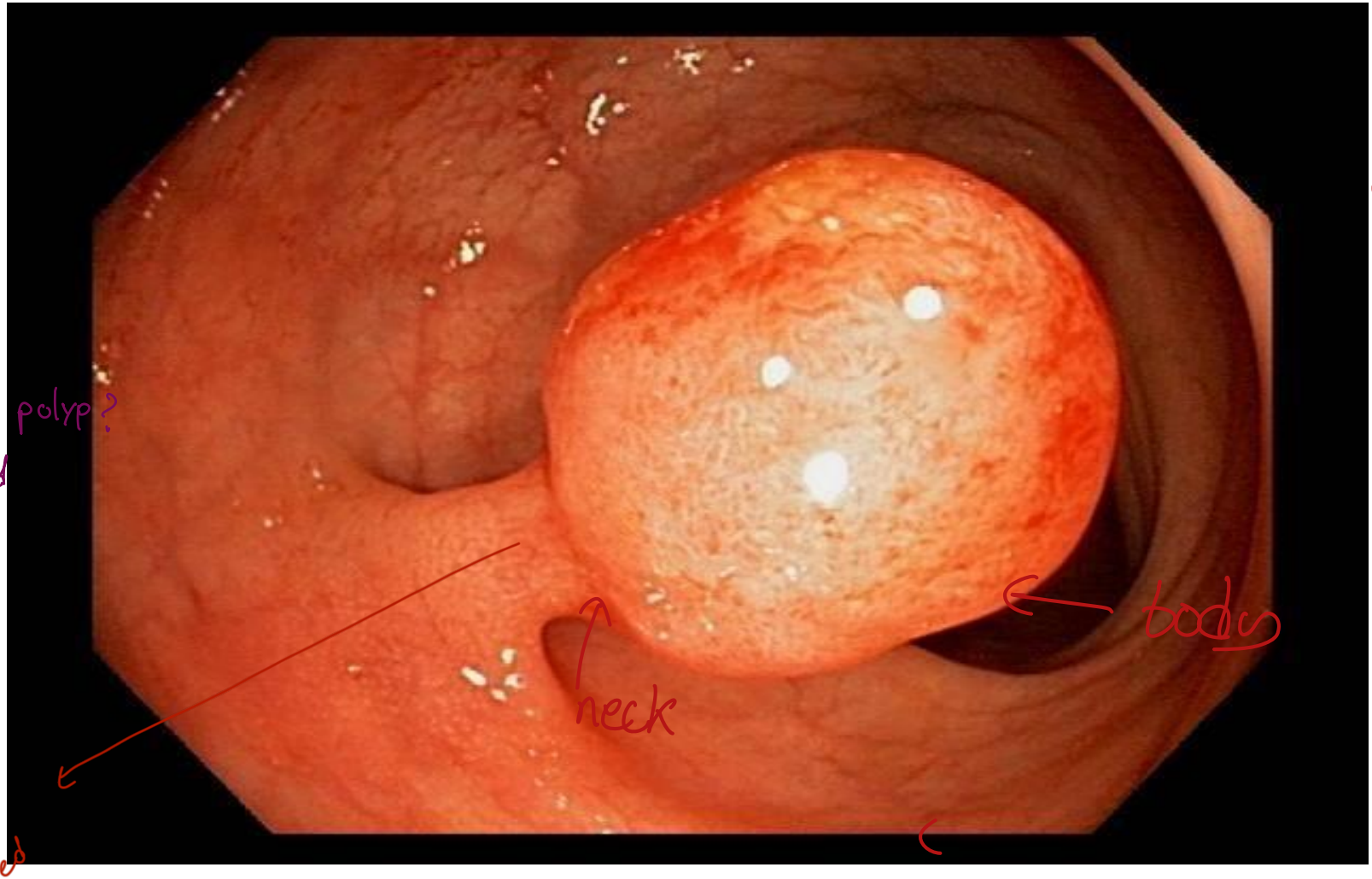
Surgical indications:
- Large cyst size.
- Location of the cyst.
- Rupture of the cyst.
- Communication of the cyst with biliary ducts.

مريض عمره 55

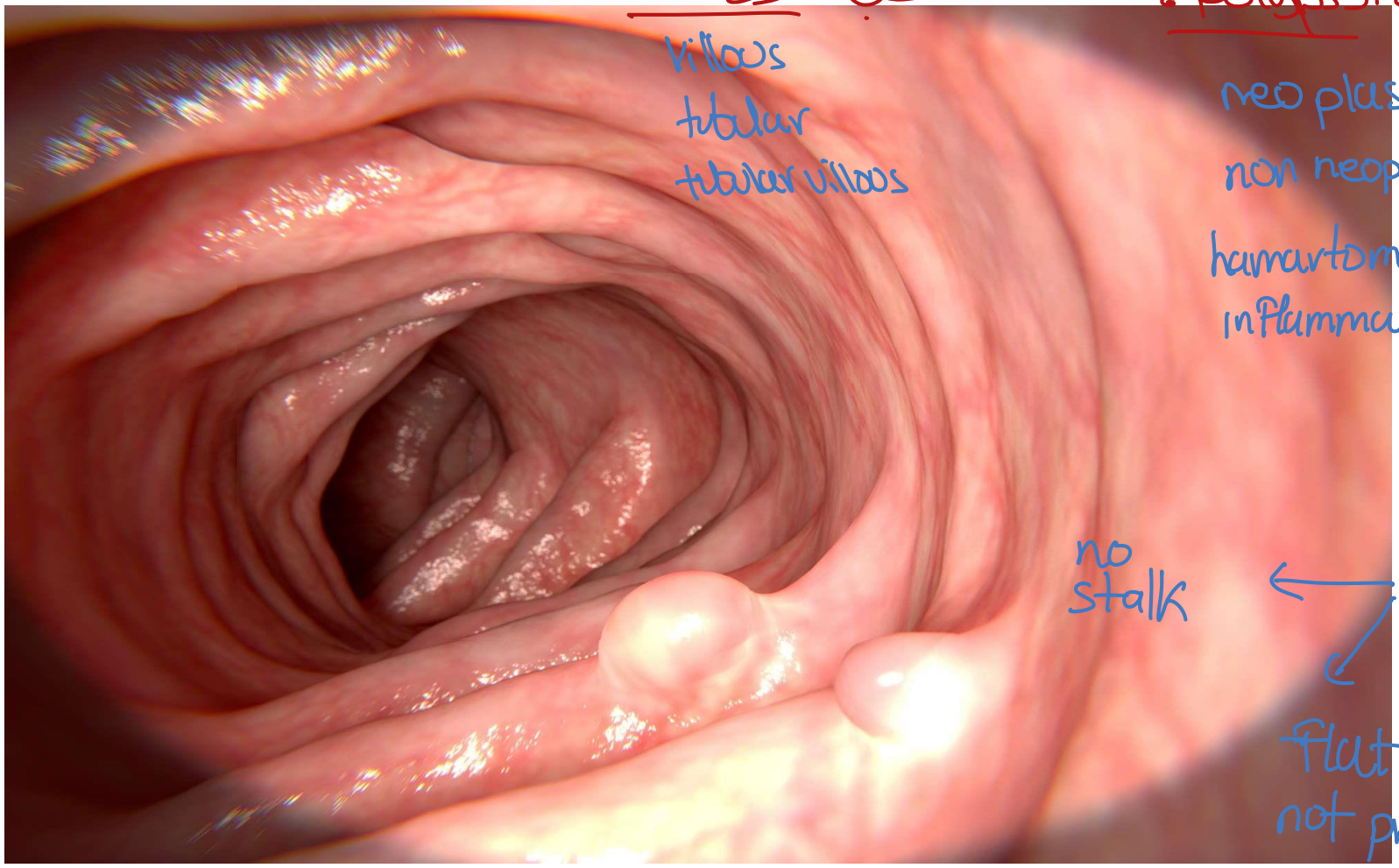
Colonscopy

Q1: what is the findings?
polyp

Q2: Type of polyp?
pedunculated polyp



Polyp
colonoscopy


تصنيف الـ polyps :
neoplastic
non neoplastic :
hamartoma
inflammatus (IBD)
histology حسب
villous
tubular
tubular villous
no stalk
Sessile Polyp
flat not projected
more risk of malignancy than pedunculated

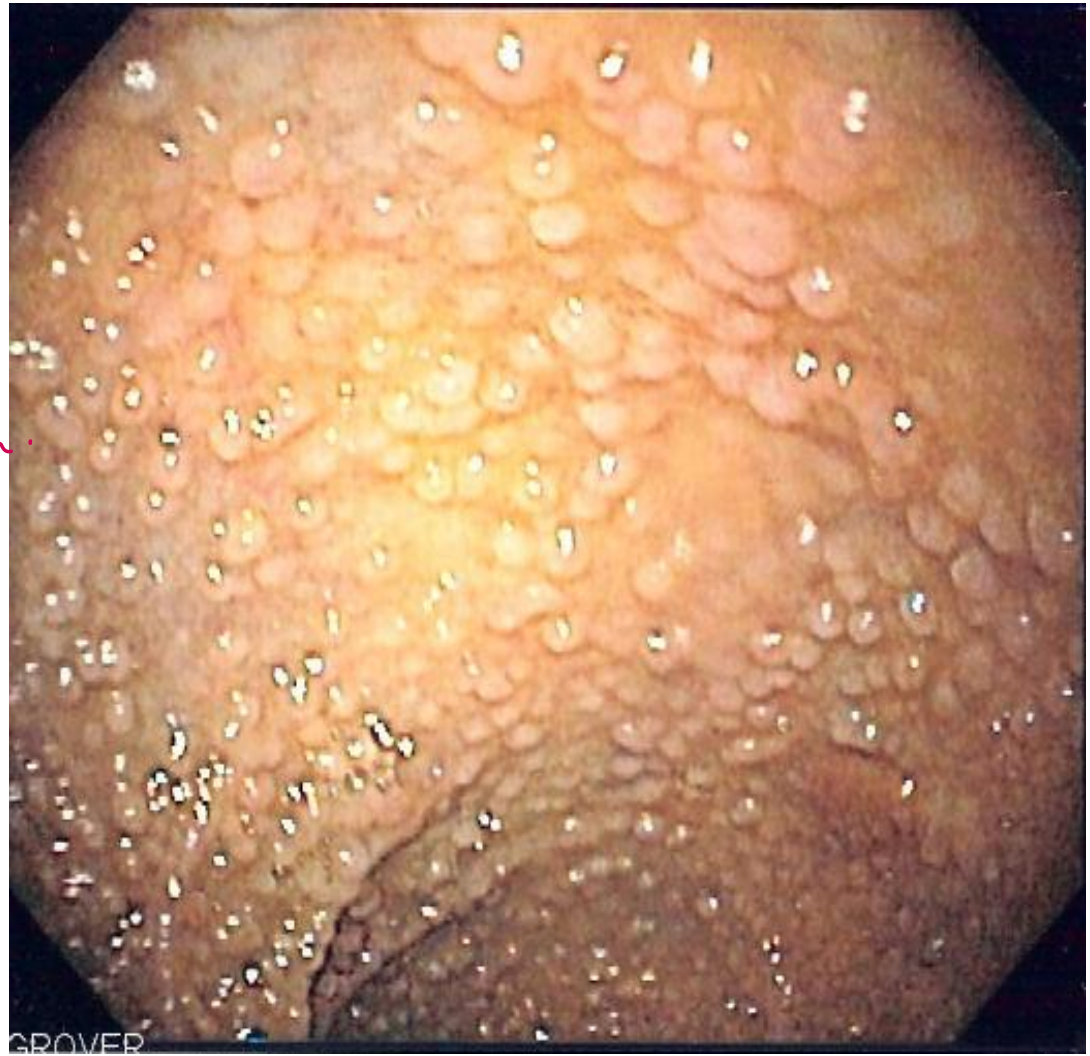
100 of polypes

FAP

mutation in APC gen in 5 chromsom.

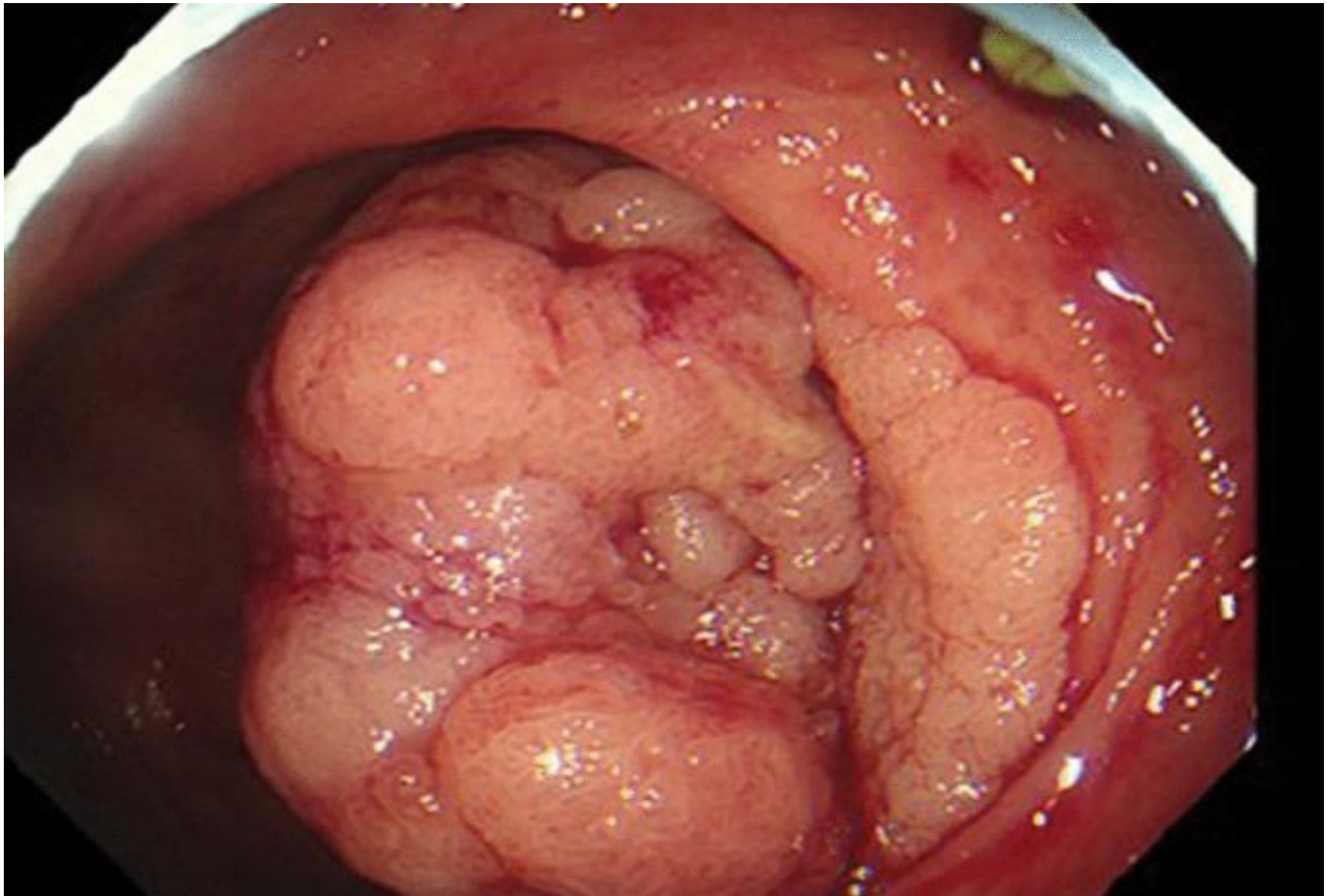
☆ 100'/. risk of colon CA.

* إذا اجا سؤال بالكتاب ومكتوب فيه no risk of malignancy خطأ 100% risk of CA



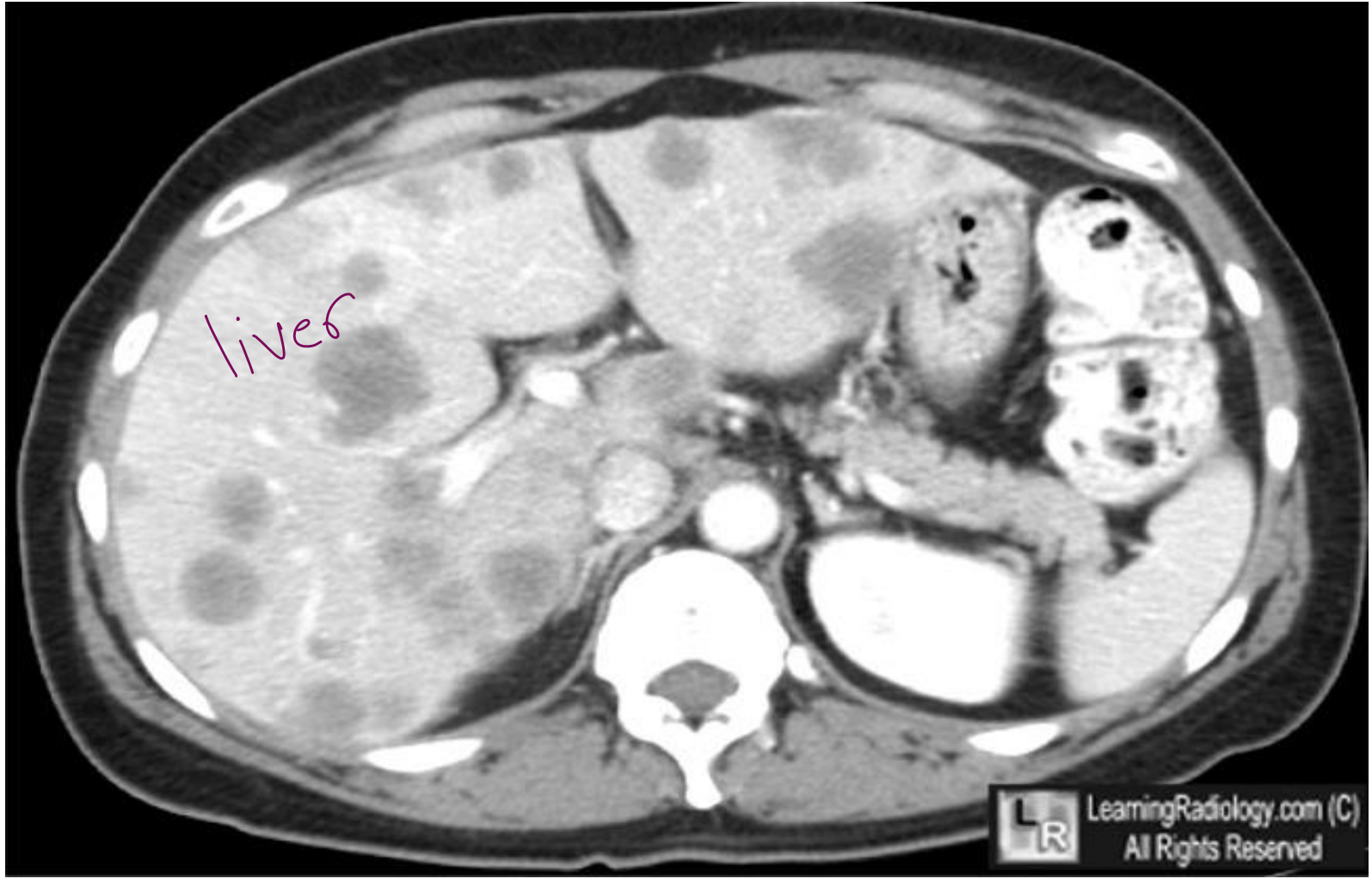
Colon CA

Cauliflower mass



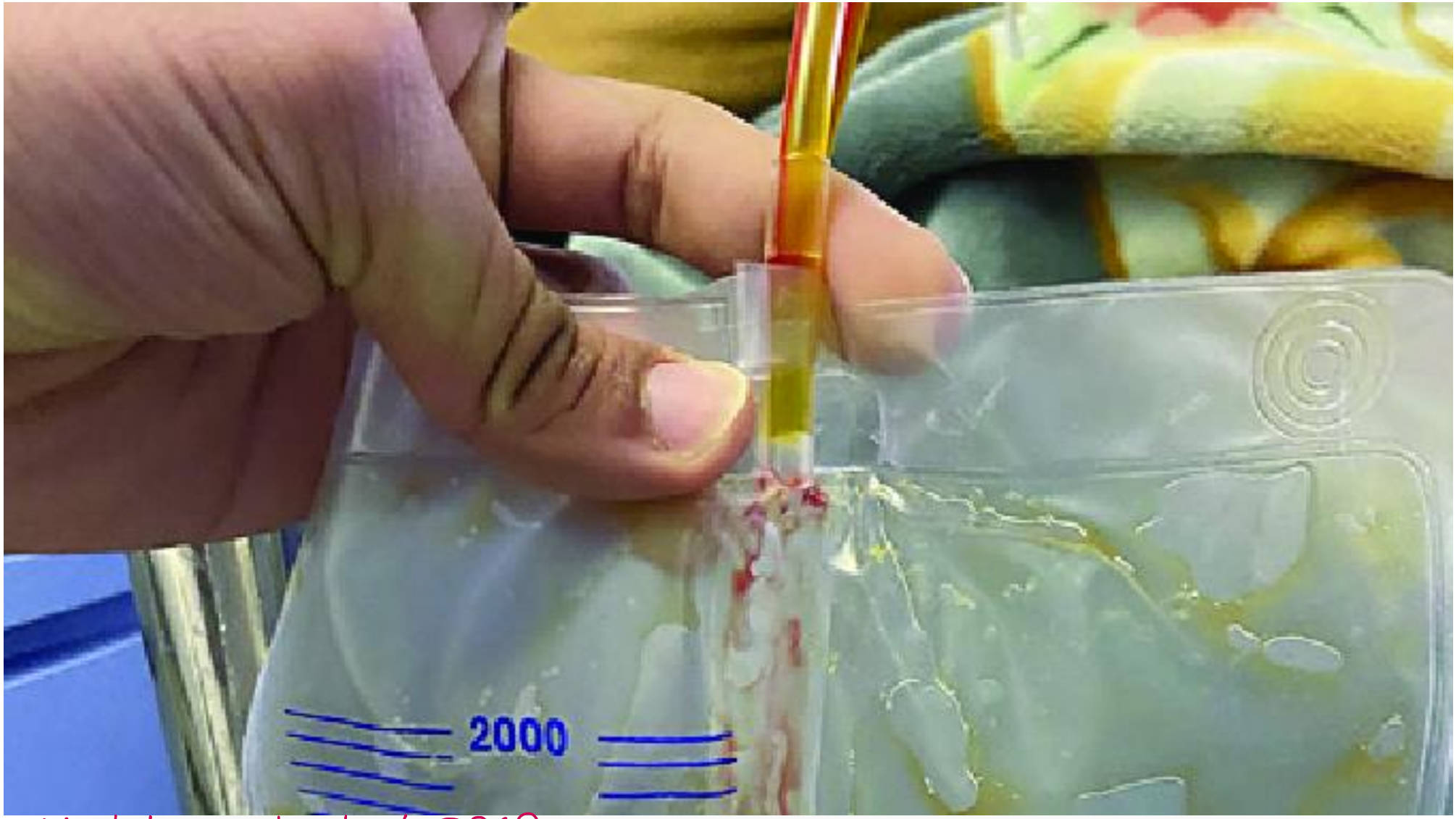
CT scan

Liver metastasis from Colon CA



* كيف بنشخص مريض liver metastasis عنده ← بكون عنده

- Jaundice
- Stigmata of liver disease :
  * ascites
  * portal hypertension
  * hepatomegaly
  * ...



cholicystectomy → bile leak / ERCP

History:
A 42-year-old patient with multiple gallbladder stones underwent laparoscopic cholecystectomy on the second postoperative day, the drainage showed the following content (yellowish fluid).

Q1:What is this content, and what is the diagnosis?
The fluid is bile, indicating a bile leak.

This is a complication of the surgery, Possible causes include:
- Dislodgement of the clip placed on the cystic duct.
- Injury to the common bile duct (CBD).

Q2:What is the management?
If the patient is stable:
Conservative management > ERCP (Endoscopic Retrograde Cholangiopancreatography)

If the patient is symptomatic or has significant CBD injury: Surgical intervention:

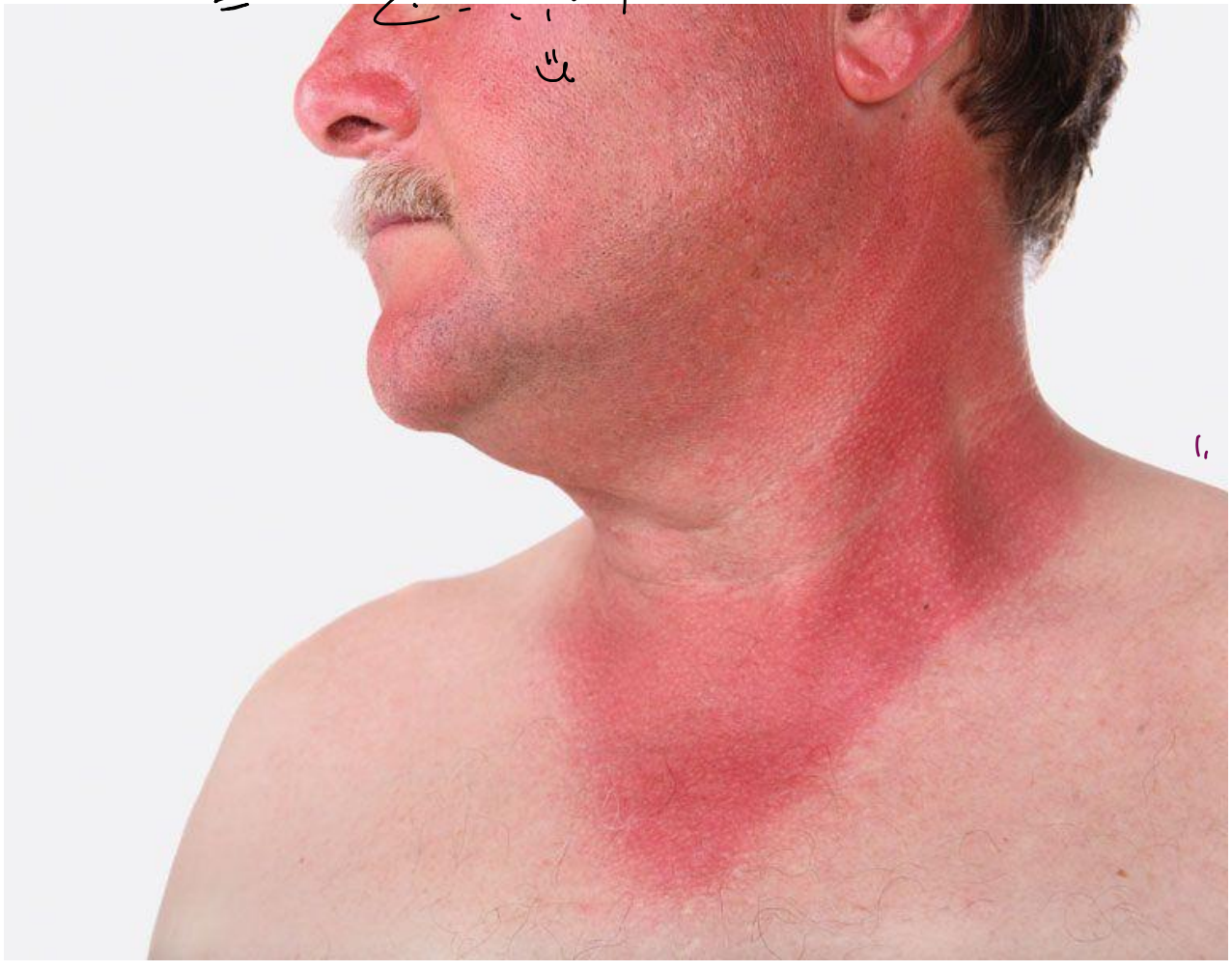
If the duct injury is small, primary repair with suturing and placement of tube.

If the duct injury is large, a hepaticojejunostomy is performed — a surgical connection between the liver's bile ducts and the jejunum.

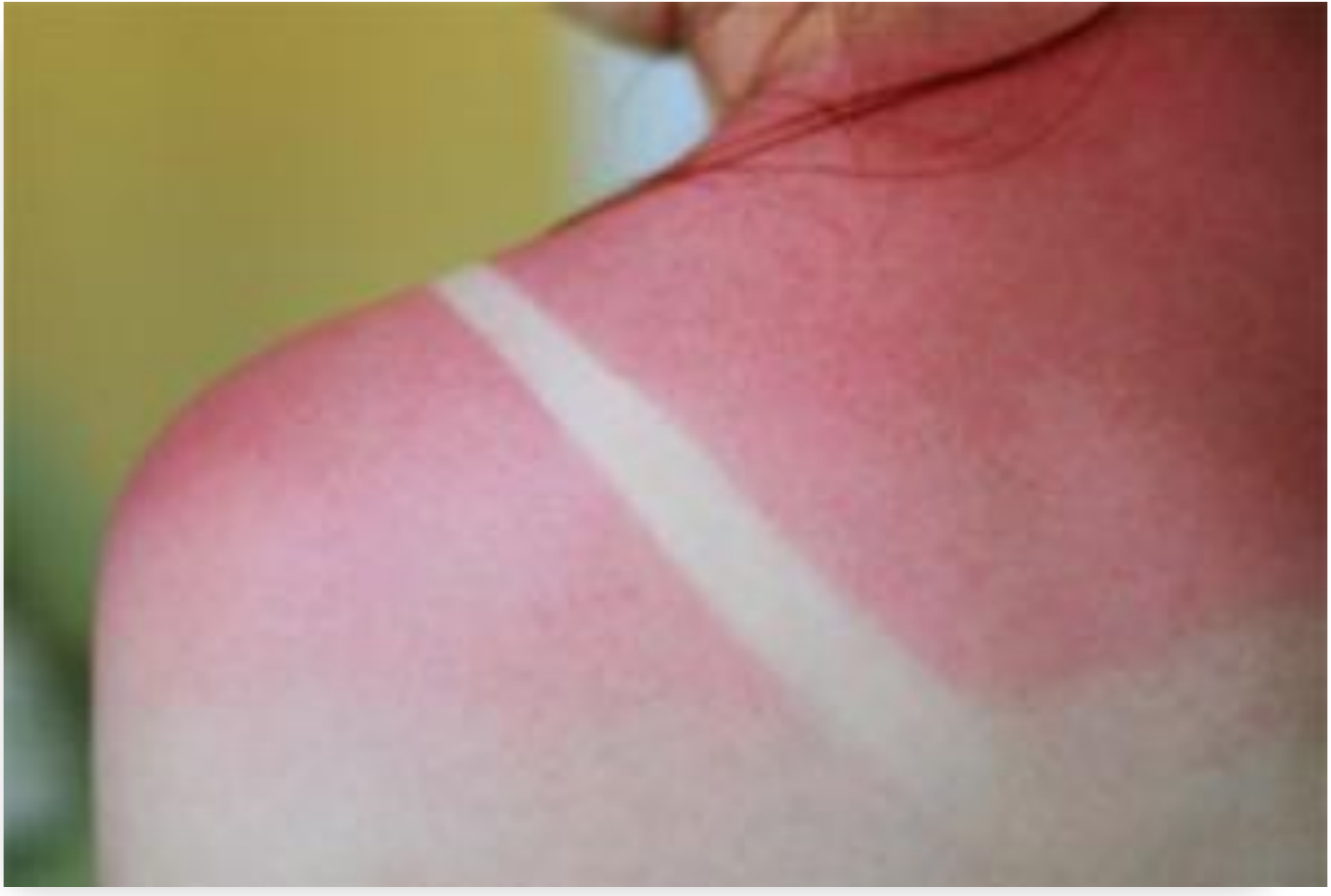
Hx :: "نار على البحر بست بسبح"

first

burn dagree

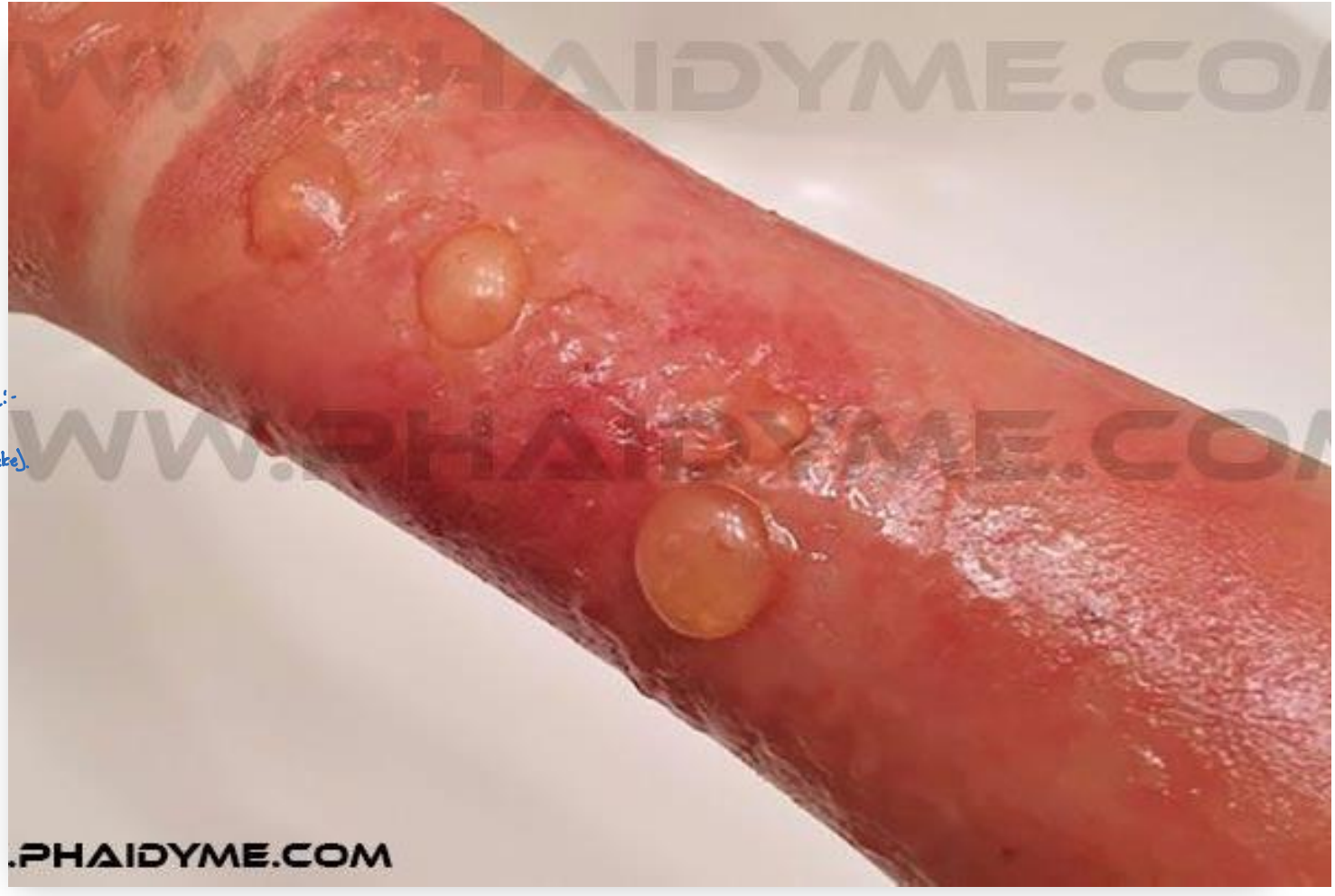


1st degree burn



Blistering

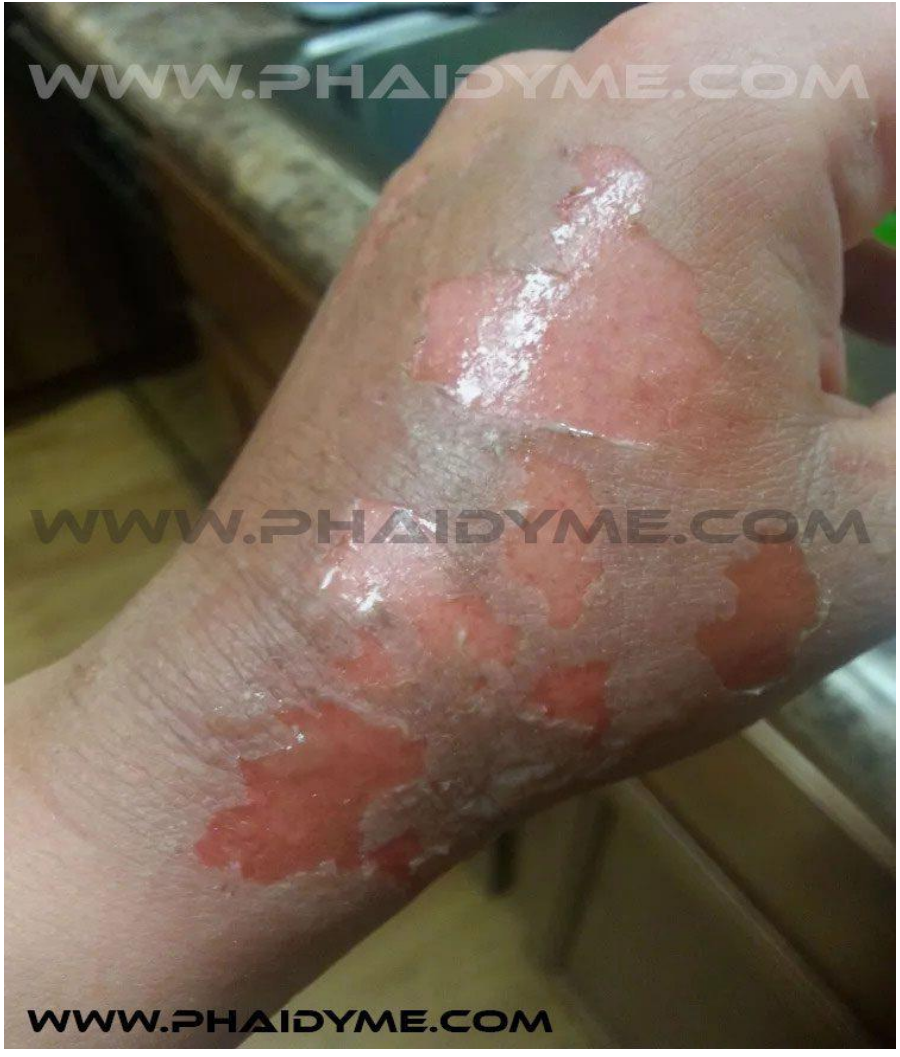
2nd dagrey burn



Sign and symptoms of 2nd degree burn:-

1. pain (nerve ending intake).
2. Redness
3. blistering
4. swelling
5. shiny apperance

2nd degree burn after resolve of Blister

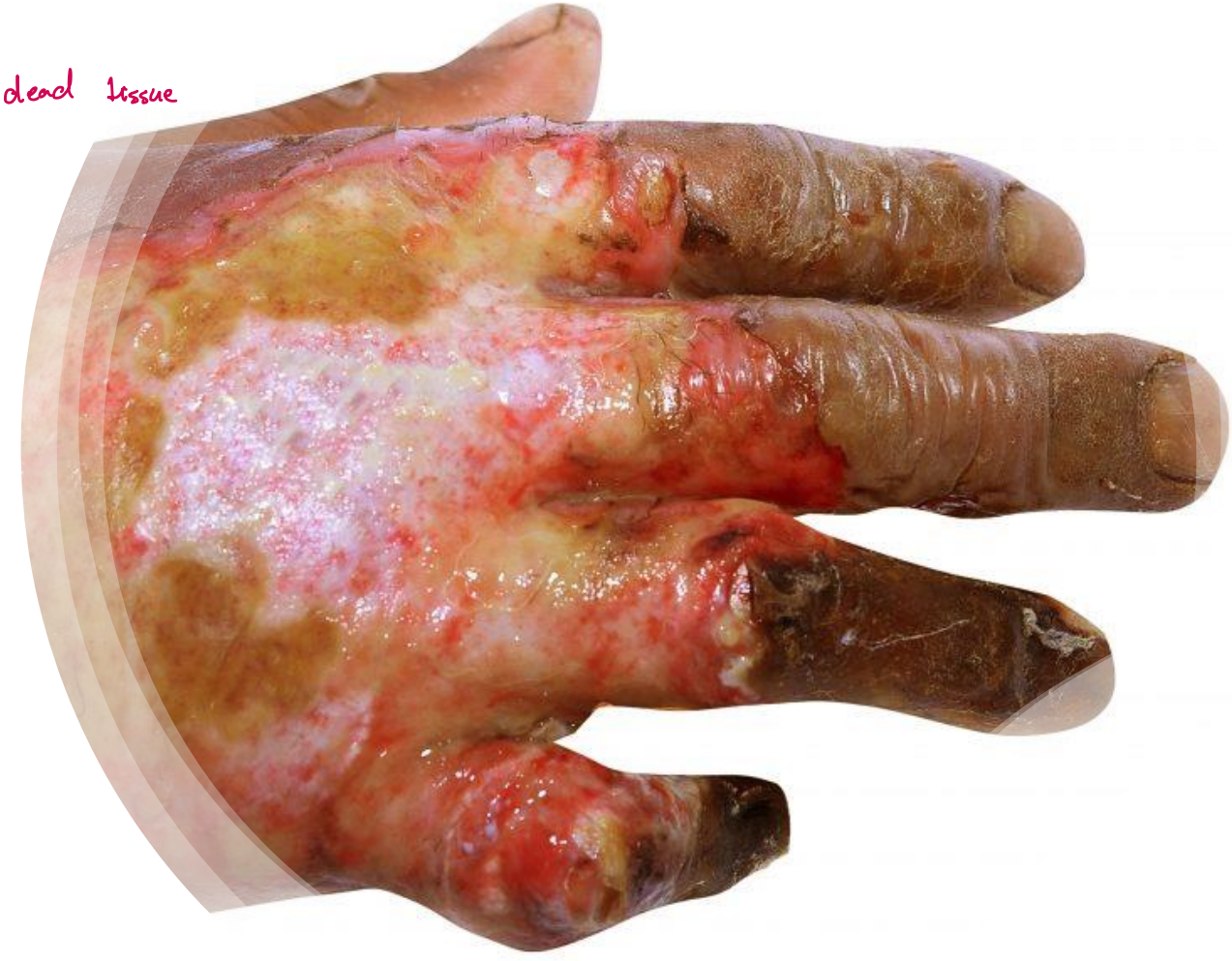


3rd degree burn

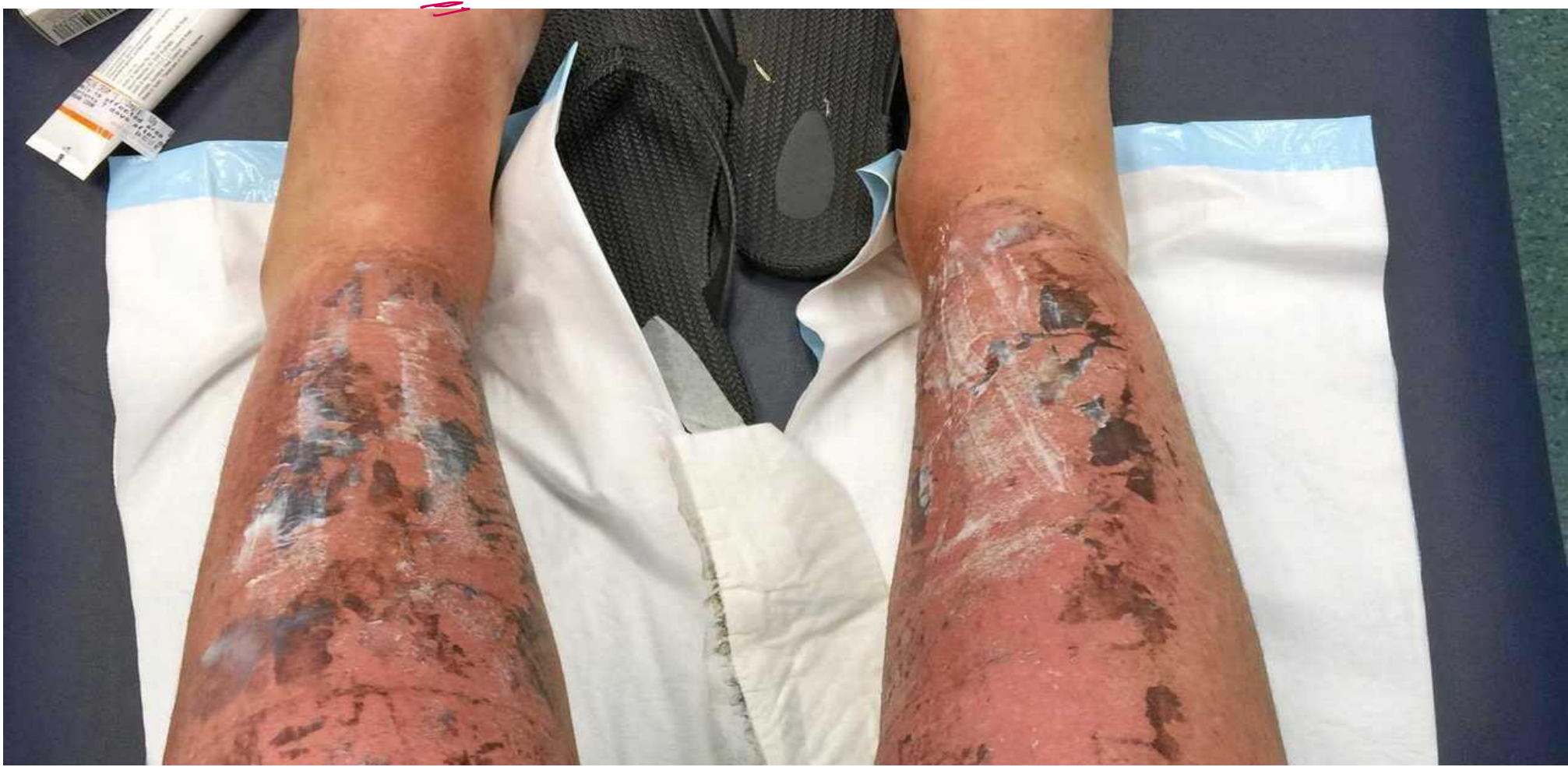
Eschar

dead tissue

painless



3rd degree burn



gangren in

1st, 3rd, 4th

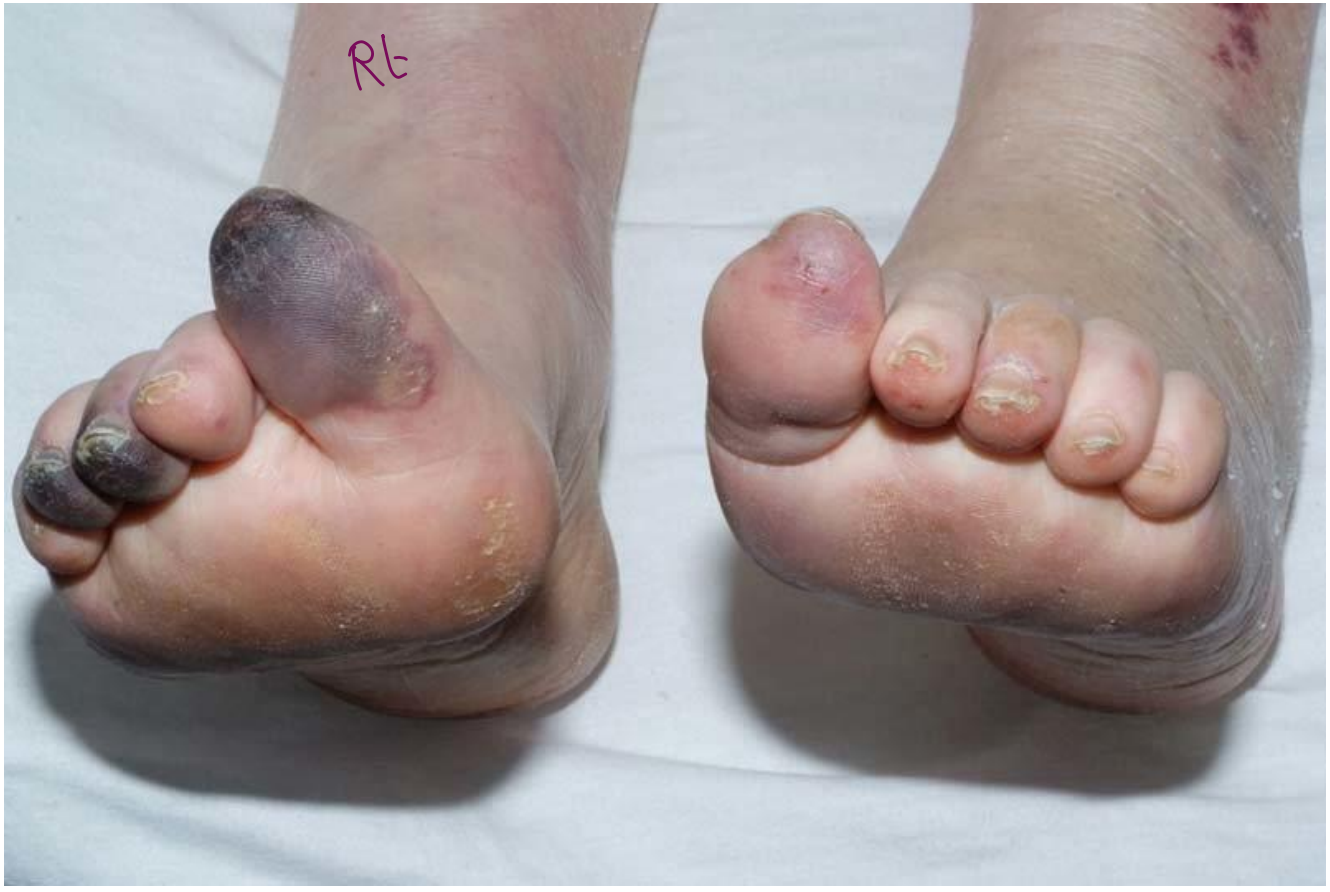
fingur

mostly is ischemia

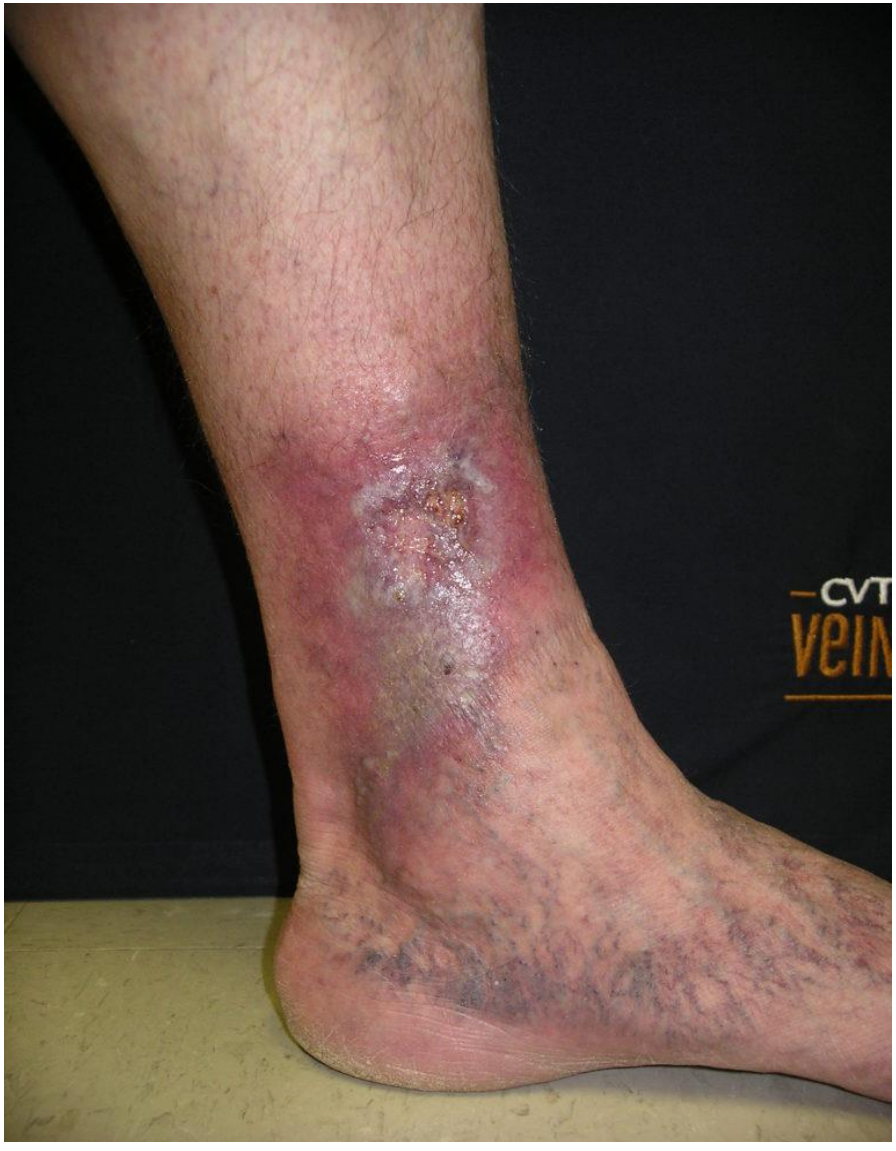
thrombosis نتيجة

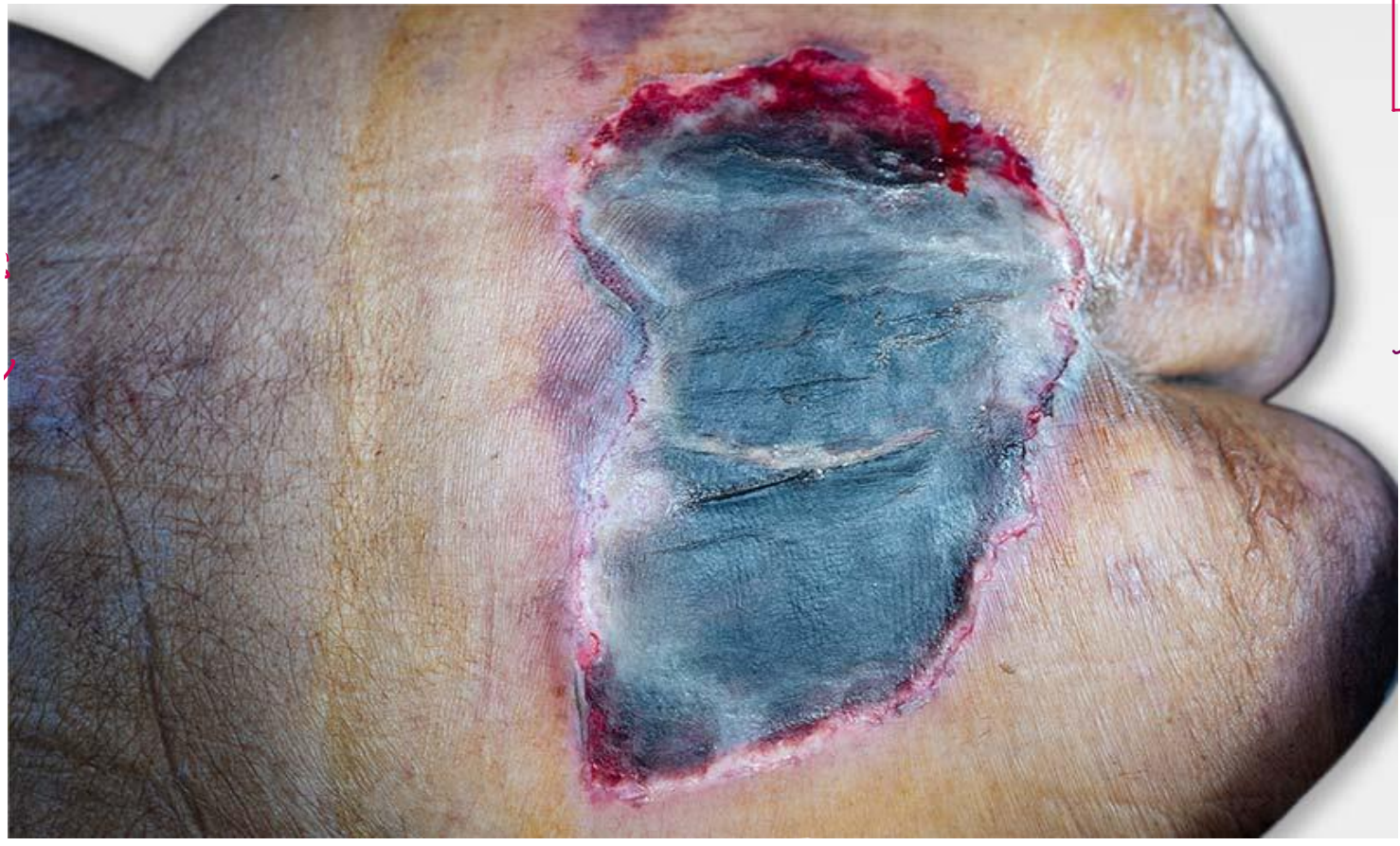
arterial ischemia

6Ps



venis ulcer + cellulitis

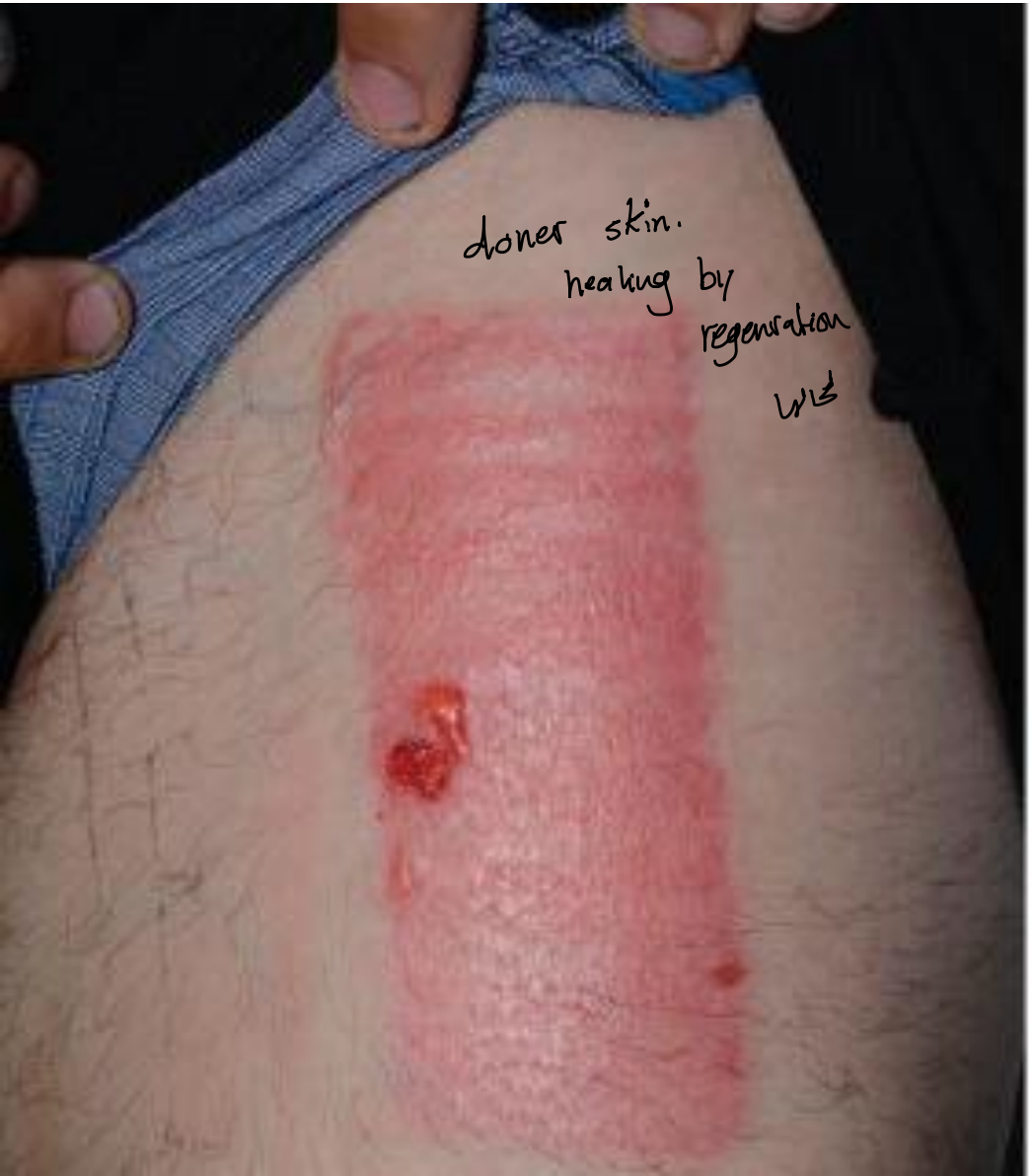
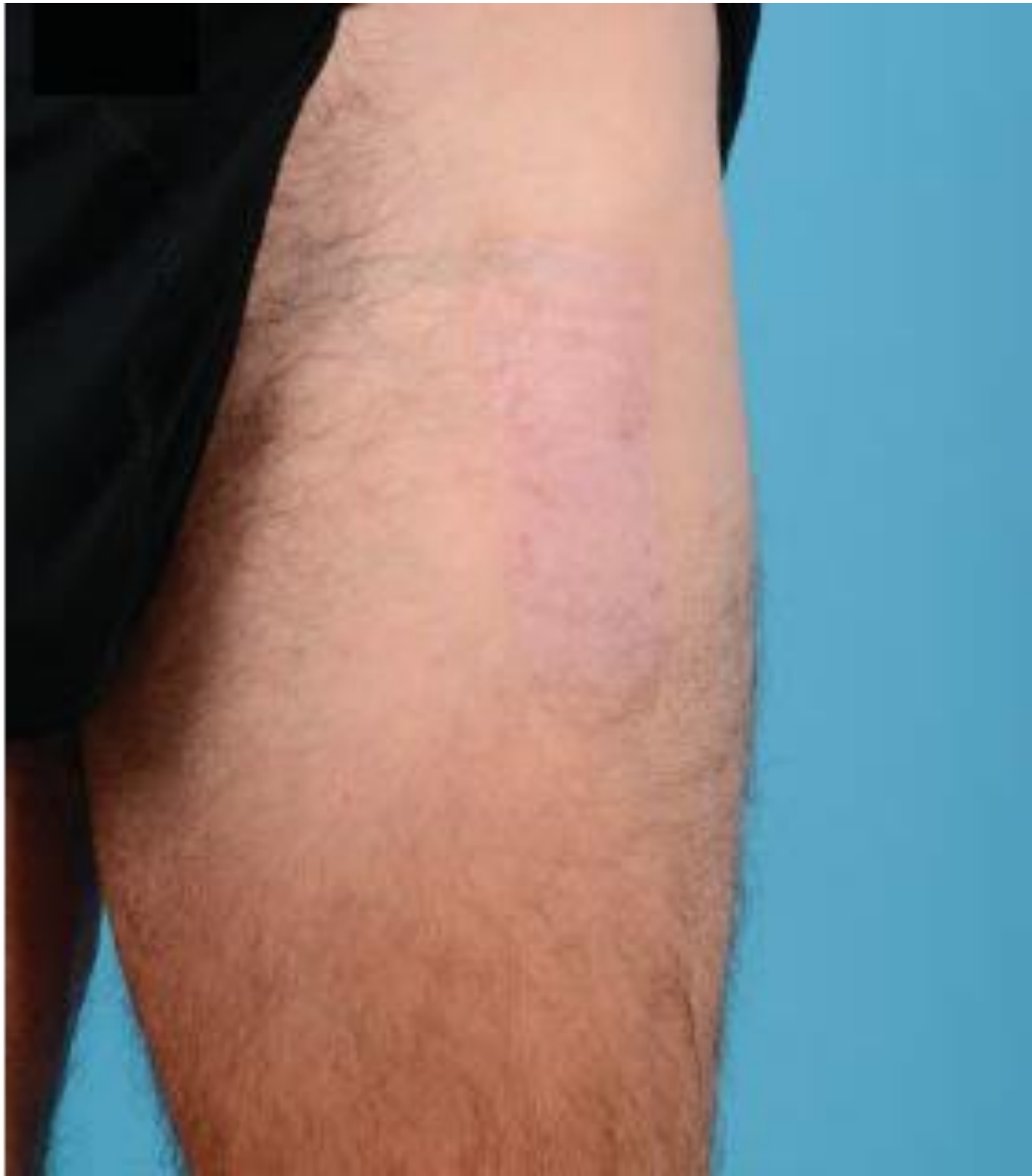


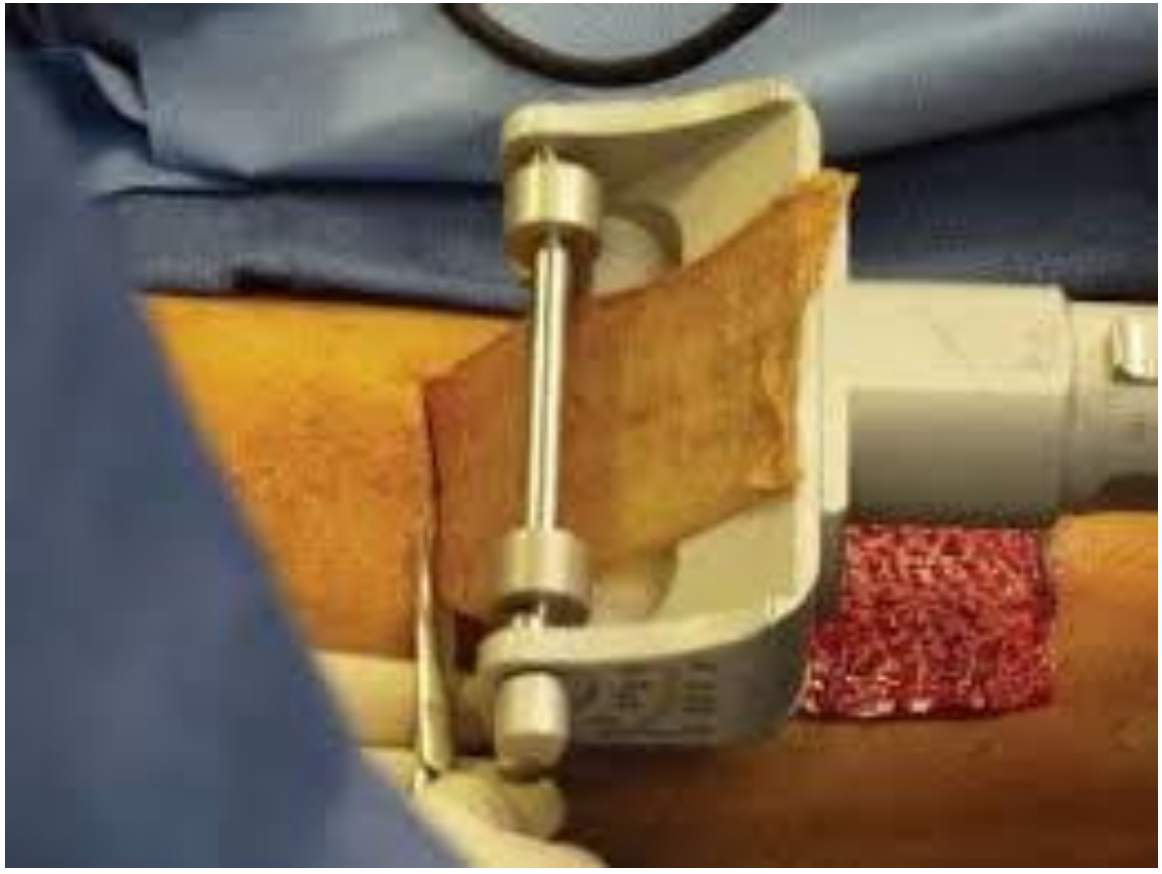


bed prusser ulcer.

bedridden

جوا بتكون أسوأ
أمم شيء أمنعها إنها تصير
مرضى الـ ICU كل
ساعتين بنقلبهم


doner skin.
healing by
regeneration
WK




اسم الجهاز ←

dermatome

كيف اعرف ان graft
اكي عملنا ناجحه ولا لا؟

١. لونها يكون احمر او pink

٢. blanching ؟!
عا اضغط باصبعي يصير لونها
ابيض وبعد اشيل تبرجع
pink

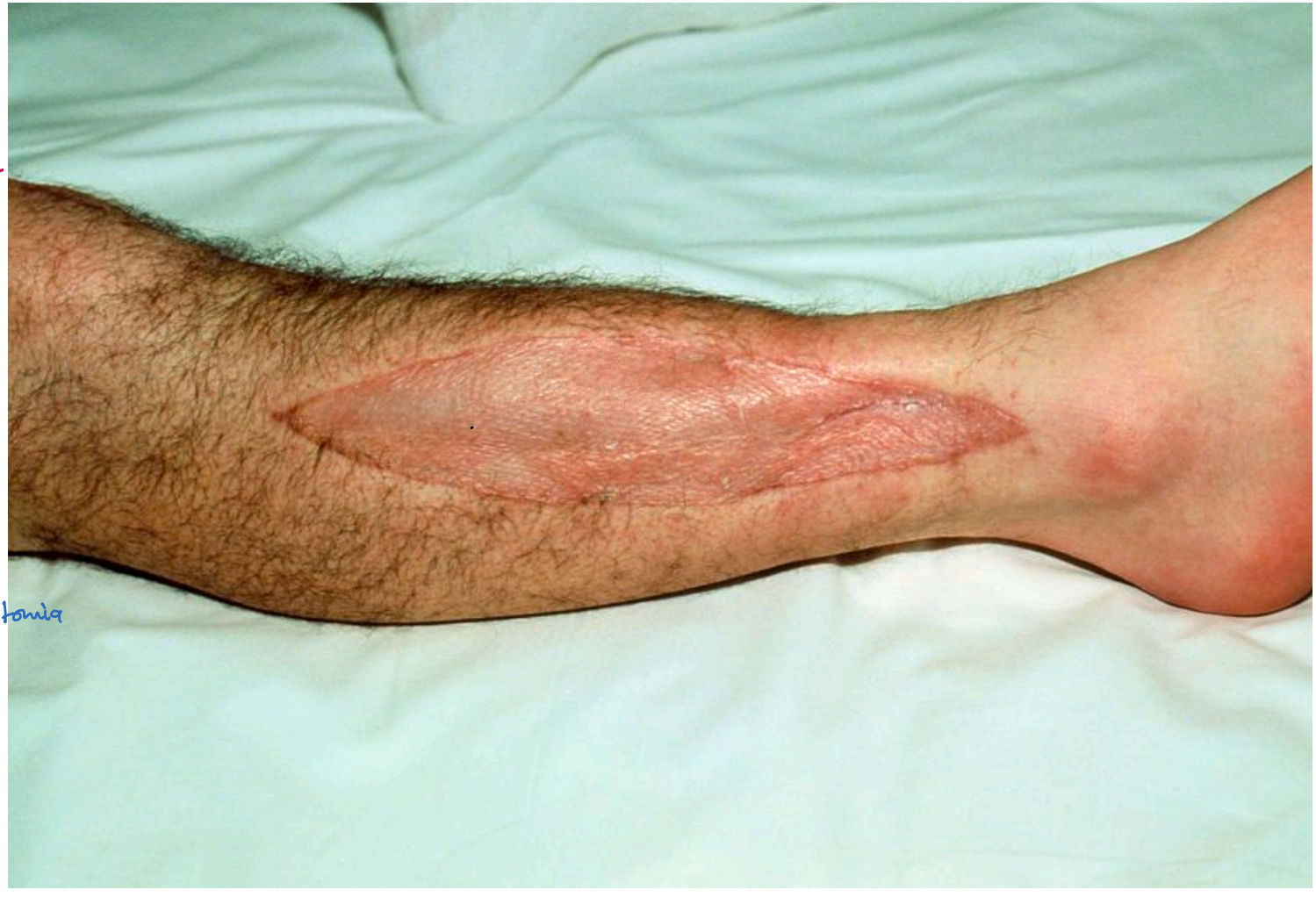
٣. ملمسة / ثابتة

اسباب الرفض ؟!

no blood supple

forgin body

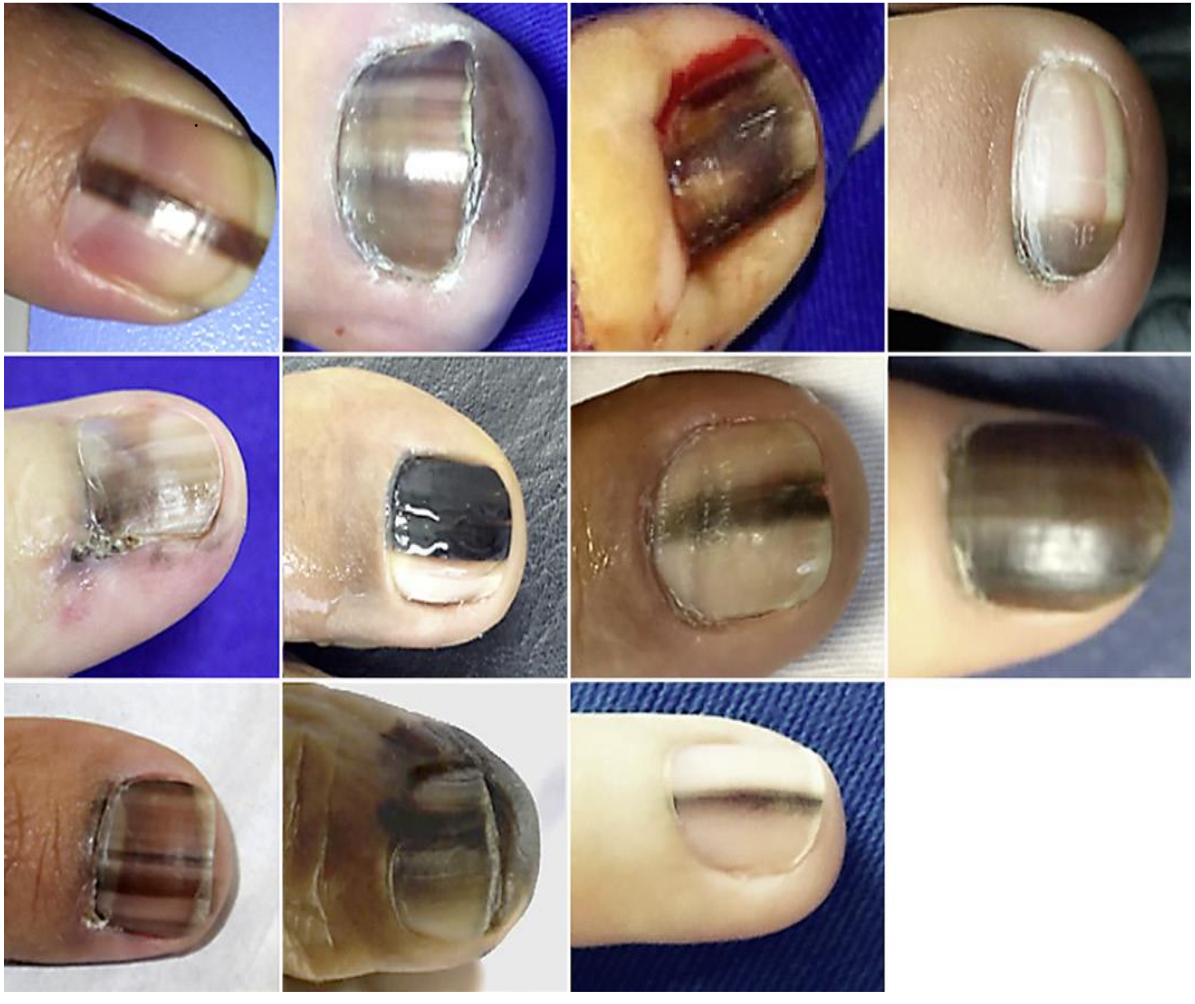
☆ seratoma or hematoma
تحت ال graft



skin graft

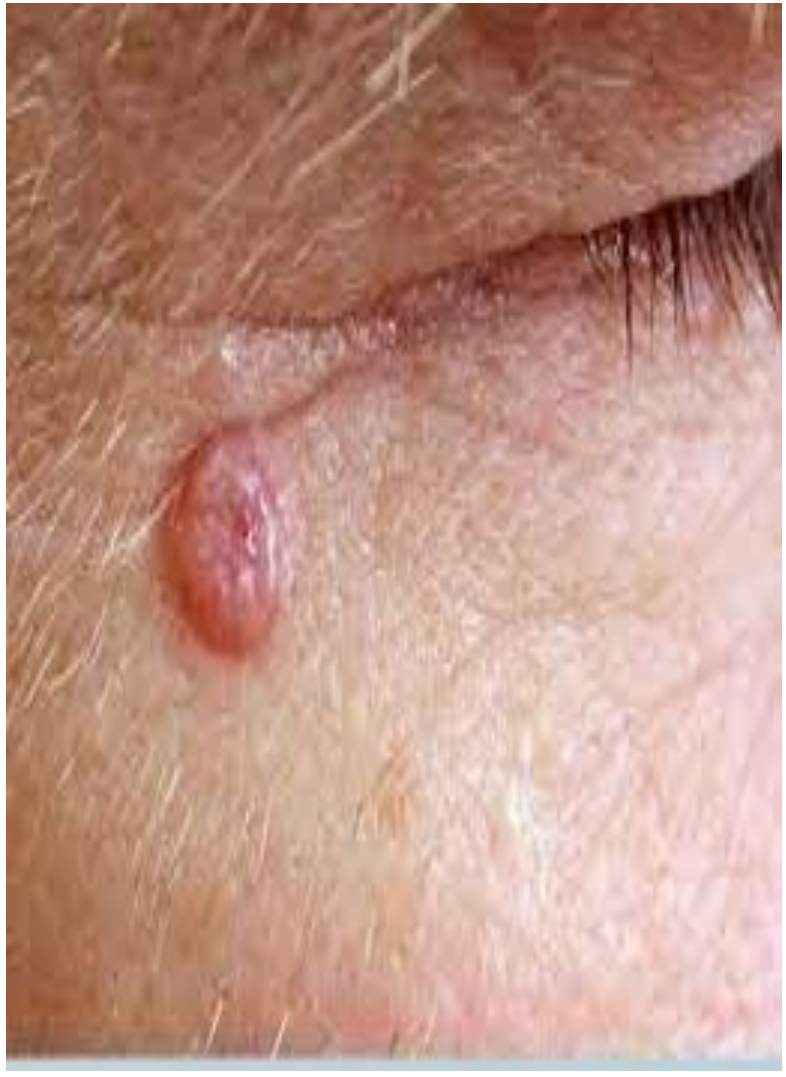
skin cancer "melanoma"

Subungul melanoma



BCC

Basal cell carcinoma

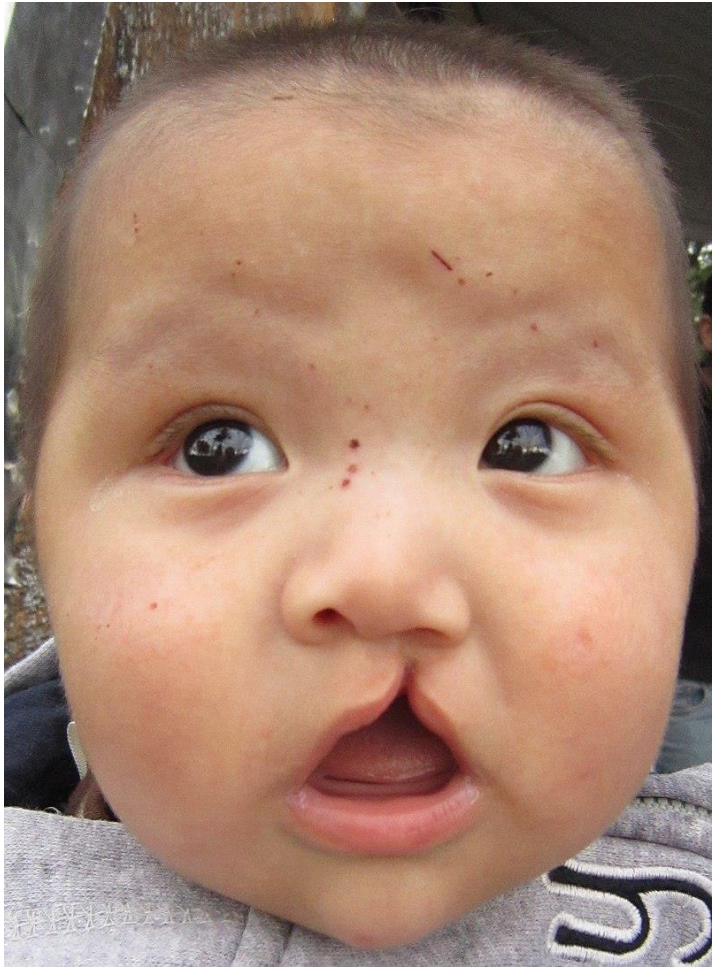


ulcer
بالنص

cleft libe

unilateral.

بين شكل



مشكلة بالرضاعة
وبتعيق عالتغذية.

↑ risk aspiration.

cleft lip and palate