The history & abdominal examination 2

Abdomenal examination

يفضل أن يسبق الـ Auscultation خطوة الـ percussion , palpation, وذلك حتى لا يتغير الـ Bowel sounds (Bowel notes).

1. Inspection
2. Auscultation
3. Percussion
4. Palpation

لازم نسمع الـ bowel sound في أماكن مختلفة لو ما سمعنا بعد 5 دقائق بنحكي absence — لو دقيقة تكفي

- When to hear arterial bruits? → Arterial stenosis / Dilatation of artery (aneurysm)
- Some causes of Cardiac murmurs → Mitral stenosis / Mitral Regurgitation.

Succussion splash

زي ما تجيب قربة فيها ماء وتخضها

- heared in stomach full of Liquids (normally)
- Blockage in outlet of stomach (pylorus or duedenum) by "benign" peptic ulcer or "malignant" cancer pylorus.
  - ↳ more common in case of peptic ulcer: why?
    1. peptic ulcer more common than cancer.
    2. Cancer pylorus blockes the outlet in advanced stage of the cancer (يعني بيكون مريض توكل على الله)

Bowel sound

most important thing for surgon to auscultate.

- Normal bowel sound 5-25/minute (1 sound / 3 sec.)
- Hyper active > 25/min. "high pitched bowel sounds"
  - → [in intestinal obstruction (early), (in late intestinal obstruction becomes (no) bowel sound)]
  - → Gastroenteritis with diarrhea.
  - → Fasting.
- Hypo active < 5/min → in hypokalemia
- Absent bowel sound: After 5 min of continuous listening
  - ↓ دقيقة وحدة بتكفي
  - → we should listen in different quadrants.

Borborygmi: Loud prolonged Bowel sound in early intestinal obstruction.

"the most common cause of paralytic ileus postoperative is hypokalemia" — normal potassium level = 3.5-5 g

- No bowel sounds < Paralytic ilius / Peritonitis.

* absent bowel sound → Protenitis

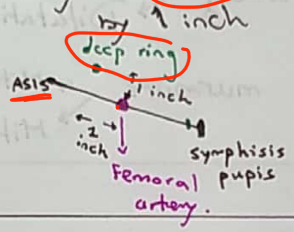
Arterial bruits → Arterial sounds.

Listen to important arteries in abdomen:.

[1] Abdomenal aorta (one inch above and lateral to umbilicus).

[2] Renal artery
- branch of aorta at Level of L_2
- heared → 2 inches above, two inches lateral to umbilicus
  - ↳ look for transpyloric plane at Level of L_1 then more alittle bit below then 2 inch laterally.
  - [below the transpylaric line] ↳ L2

[3] Femoral artery
→ at mid inguinal point (half way between ASIS & mid line) symphesis pupis.
→ Femoral artery in medial to deep ring by 1 inch, inferior
by 1 inch — deep ring: opening in fascia transversalis.



* inguinal lig is apenurosis of ext. oblique muscle...

murmur الطبيعي لما يسمع
تلاقي له صوت
dilated A [anyresm] | narrowed A [stenosis]

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* Case \\

مريض عامل عملية فى البطن سواء Laborscopy أو open surger
متى مسموح إله ياكل وليشرب بعد العملية ؟؟

Once bowel sound is back
to small intestine after 12 h
to stomach after 24 h
to colon after 36 h

- Don't wait the patient to pass flatus.
- In case the patient has post surger complications you need to wait longer before start eating or drinking.

Venous Hum (kenawy's sign)
machinary murmur due to increase pressure in the splenic vein.

→ Heared in case of:
- spleenomegaly
- portal hypertension [↑ venous Hum]
- priportal hepatic fibrosis (in bilharsiasis) ~~with~~ which causes spleenomegaly ↳ cala azar

⇒ Heared when you put the stethoscope under xiphoid on spleen or spleenic vein

⇒ Louder in inspiration علشان فى الشهيق بينزل الحجاب الحاجز و بيضغط الطحال لتحت .

Friction rub

- Metalic noise
- plursy (inflamation of plurae)
- Peri splenitis (inflammation of spleen capsule)
- Infarction of Liver or spleen

ناتج عن

اهم حاجتين بيدور عليهم الجراح في ال Auscultation
① Bowel sound
② Arterial bruit

Percussion

① mass – hernia [size]
② Ascitis or fluid
③ Tenderness

- Doctors of internal medicine prefer percussion & palpation for organs like liver & spleen.
- Surgens look for masses, and tenderness

× we can elicit tenderness in the abdomen by percussion and palpation.

وجود سوائل في البطن
⇐ مثل Ascitis ممكن يحل هبوط SL ⇐ مشغل باطنة
⇐ Cancer ممكن يحل حجم السوائل IL ⇐ مشغل جراحة

- Percuss all quadrants clockwise or counter-clockwise.
- the tender area percussed last.

⇒ when start percussion, start at resonant area then more toward Dull area.

① يعني ابدا في ال Thoracx ⇐ noramally resonant (ابدا at 2nd rib), بعدين انزل كم ال 5th inter-costal space
⇐ Dull (upper border of liver)

→ At inspiration, all intra peritoneal organs moves down ward (including the Liver) so at 5th intercostal space become resonant.

② بعدين ابدا من تحت من عند ال iliac fossa وبطلع في اتجاه الكبد او الطحال
resonant → resonant → resonant → Dull (at Lower border of liver or spleen if enlarged.

Liver span

at mid clavicular Level, 8-10 cm in females, 10-12 cm in male

Liver < 6 cm ⇒ cirrhotis liver

Liver > 12 cm ⇒ hepatomegaly.

at midline, 4-8 cm

* Grades of Resonant sounds : (من الأقل إلى الأعلى منتج)
① Resonant
② Hyper resonant
③ Tympanatic ⇒ found at abdomen in intestinal obstruction

← علشان هيك لما بدنا نوصف الـ abdomen غالبًا نستخدم hyper resonant . أو resonant

Percussion of spleen :

- spleen normally can't percussed, unless enlarged x3 it's size.
- Liver & spleen locate above costal cartilage. [Thoracoabdominal organs]..

Castell's spot

Locates at the point the ant. axillary fold hit the 10th costal cartilage.

↳ normally, must be resonant in inspiration & expiration

↳ Resonant in expiration, dull in inspiration ⇒ mild splenomegaly

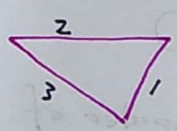
↳ Dull at expiration & inspiration → more sever splenomegaly

↳ some times, the Castells spot is percussed dull but still this is normal in Full fundus of stomach اذا كان المريض ماكل Or in case of lung consulidation (pneumonia) الرئة فيها مية ⇒ Dull Castell's spot.

Hernia sac Content :-
1- SI or Colon → air [resonance]...
2- omentum → fluid, Solid [dull sound]...

Traube's Triangle

borders :



1 Ant. axillary line
2 sixth rib
3 costal cartilage

↳ should be resonant in inspiration & expiration

↳ Mild splenomegaly ⇒ dull in inspiration

↳ Modret to severe splenomegaly ⇒ dull in inspiration & expiration.

Palpation

Thin pt
In slim individuals
superficial palpation by palmar aspect of the fingers (1cm)
Deep 2cm

- Tenderness (as in appendicitis) is masked by drugs (analgesics).
→ peritoneal palpation → unclear if he take NSIDS

* perforated viscous (ulcer) ⇒ air under diaphragm ⇒ muscle rigidity ⇒ Surgery

- Rigidity types
  - Voluntary → as children لما بنيجي نفحصهم
  - Involuntary in peritoneal irritation. (peritonitis). palpation راح تصعب ال

⇒ Abdominal structures felt commonly as masses :-

Percentage of perforated appedincitis in age < 3 years ⇒ 100%.
in children → صعب تشخيصه لان الطفل بيغلب بالنغصه فا بنقدر نشخص بسبب ال muscle rigidity...

- Full urinary bladder
- Gravid uterus [fetus]
- Abdomenal aorta
- Lower ~~bdorder~~ border of Rt. kidney in slint (نحيف) patient. (it's $\frac{1}{2}$ inch lower than Lt kidney).
- Loaded colon (stool in cecum or sigmoid) [fecal mass]
- Lenia semilunaris (lateral border of rectus m.)
- sacral promontory in slint patient.

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* Masses more likely malignant :
  - hard consistancy
  - irregular borders.
  - calcification
  - Attachment to underlying structure.
  - Fixed mass

- mass Consist.
  - firm
  - soft
  - hard
- surface
  - regular
  - irregular

- How to Know if the mass reached the skin or not? Pinch the skin. نشد الجلد لو طلع معاه يعني the mass under skin
if can Pinched ⇒ the mass ~~is~~ still not reached the skin. لو ما قدرنا نمسك الجلد يعني جوا الجلد

- Pulsation
  - expansile [aortic aneurysm]
  - Transmitted the mass over the aorta and transfer it's Pulsation

- normal size of abdominal aorta ⇒ 2.8 cm in diameter (more than 4 ⇒ aneurysm)

* Regional L. N s

① above umbilicus
- superficial → axillary L. N. S
- deep → para aortic L. N. S

② Below umbilicus ⇒ inguinal L. Ns.

* Tenderness → acute or not عايز احدد هل هي عشان نعرف هل محتاج دخول ولا
→ abcess or peritonal irritation..

* intra peritoneal mass → with insp. go down.
* extra " " " " go up.
تتحرك اكتر.

* Mass which increases in size when cough ⇒ hernia.

* Deep palpation : بتنزل 2 cm by palm of fingers not the tip of finger
→ horizontally
* In obese patient بتنزل اكتر or bimanual palpation.