Al- Azhar University - Gaza

Palestine Faculty of Medicine

OSCE – Dynamic- Physical Examination

(Abdomen – Chest – Cardiovascular – Thyroid – Lower Limp -Breast)

Edited By: Abdelrahman M. Haroun

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Firstly : ABDOMINAL EXAMINATION.

Abdominal Examination:

These instructions have to be done in every examination whatever it is!

- ✓ Explain to the pateint what you are going to do.
- ✓ your hands should be warm, also your stethoscope.
- ✓ Position of the pt. : the pt should be centralized in the bed lying on one pillow.
- ✓ Stand on the Rt. Side of the bed.

Then start:

1- Introduce yourself to the patient.
2- Take permission.
3- Take privacy.

ask the pt if the bladder is empty before examination

Take permission to expose the pt (ideally from the nipples to symphesis pubis).

1- Stand in front of the bed and **inspect** the abdomen :
   a- Shape: (distension, flat, scaphoid, bulging of flanks) also ask the pt to take a deep breath to comment on the type of respiration and any asymmetry.
   Now stand on the Rt. Side of the pt and inspect the following:
   b- The umbilicus (position, inverted/everted, nodules, discharge).
   c- Hair distribution.
   d- **S**cars (site, name, length, color, if infected?)
   e- **S**triae (site and color)& superficial veins.
   f- **S**kin rash (pigmentation) primary & secandry skin lesion.
   g- **S**cratch marks
   h- Ecchymosis
   i- Localized masses
   j- Visible pulsations
   k- Paracenthesis site (say it only if present, don't say there is no).
   l- Active inspection (divarication of recti, hernia orifices) in surgery only!
2- **Palpation**: (ask the pt if there is any pain)
   a- Superficial palpation (rotating movement start in Right iliac fossa:
      - Tenderness
      - Superficial masses
      - Temperature
      - Guarding
      - Rigidity
   b- Deep palpation:
      - Tenderness.
      - Deep masses
      - Gives u impression about any suspected organomegaly

Notes:
Always DO NOT FORGET TO LOOK AT THE FACE OF THE PATIENT WHILE YOU ARE PALPATING THE ABDOMEN.

Always DO NOT FROGET TO SUPPORT THE RIGHT & LEFT HYPOCHONDRIAL AREA AS YOU PALBATE KIDNEYS!

If there is any tenderness, do **rebound** in surgery only !

3- **Auscultation:** is sound of bowel present? absent? Slagge? Exacerbated? 2cm below & lateral to umblical.
it depends on the case & the doctor to complete the following auscultation or Not !
- Renal a. bruit (2cm above & lateral umbilicus).
- Hepatic artery bruit (hepatocellular CA, hepatoma. , alcoholic hepatitis)
- Aorta (between umbilicus & xiphoid process)
- Common ilac artery (2cm blew & lateral umbilicus)
- Fermoral artery in mid inguinal point

4- Percussion: consider the abdomen a box with 4 quadrants & do percussion in every quadrant, DO COMMENT on it, tympanitic , resonance or dull.

To complete my exam I would like to examine the followings: PR, Ext. genitalia, also don't forget to examine lower limb edema!

Specific abdominal organs Examination.

The liver : liver edge & liver span.
liver edge (normally unpalpable)
start from right iliac fossa then go upward if you feel it describe:
- **site**
- **Surface (smooth/ irregular)**
- **Edge (smooth/ irregular)**
- **Consistency (soft/ firm/ hard)**
- **Tenderness**
- **Pulsatile**
- **Any audible bruit.**

Notes : (Tenderness DDX: in Rt. Heart failure(congestion) and HCC(if large) and Hepatitis and liver abscess & pulsatile in tricuspid regurgitation).

Liver span: normally (8-12 cm in male, 6 -10 cm in female**)**
maneuver: start from right iliac fossa then go upward once you hear dullness stop there mark it after permission is taken! Then start from 2nd or 3rd intercostal space & do downward once you hear
dullness stop , mark it & measure it.

The spleen : Palpation (3 maneuvers)
- Splenic palpation
- Splenic percusion
- Percussion in traubs area

Splenic palpation maneuver: begin plapation from RIF , go diagonally to the costal margin ,normally unpalpable , Do NOT forget to ask pt for deep breath while you palpate.

Splenic percussion maneuver: ask pt to take deep breath & hold it then do percussion on the left costal margin if your hear dullness the test is +ve

percussion on traubes area: (traubes area) its surface markings are respectively the left sixth rib superiorly, the left mid axillary line laterally, and the left costal margin inferiorly, do percussion there if you hear dullness then test is +ve .
note: DDX is 1- splenomegaly 2- normally after meal 3- left pleural effusion or consolidation.

The kidneys: (differences between Lt. kidney & spleen)

Palpable spleen	**Left kidney**
1. It is in left hypochondrium	1. It is in left lumber region or loin
2. Moves with respiration towards right iliac fossa	2. Moves downward and forward
3. Well defined medial border	3. Round upper end
*4. Notch is present	4. No notch present
5. Get above the swelling- not possible	5. Get above the swelling- possible
*6. Insinuation of finger between the mass and left costal margin is not possible	6. Insinuation of finger between the mass and left costal margin is possible
*7. On percussion: Dullness over the mass which is continuous with the left lower chest	7. On percussion: Colonic resonance over the mass
*8. The mass is palpable	8. The mass is palpable as well as ballotable.

(*) means most important differences.

Related abdominal Examinations;

Look for stigmata of chronic liver disease or liver cirhosis:

The hand: - clubbing

- Leukonychia
- Palmar erythema (also in RA, pregnancy, old age, thyrotoxicosis, CO2 retention).
- Interossie muscle wasting , thenar & hypothernar muscle wasting.
- Dupuytren's contracture (alcoholic hepatitis, DM, RA, smoking, occupational)
- Pale
- Spider nevi
- Xanthoma
- IV injection sites (common in Lt. cubetal fossa)
- Scratch marks & ecchymosis
- Flapping tremor

The eyes: - jaundace

- Xanthelasma
- Kayser Flischer ring

The face: - fetor hepaticus
- parotid enlargement
- pale

Examine the **neck** for lymphadenopathy. Also axillary LN and hair.

The chest: gynecomastia in males (causes ??), breast atrophy in females,

Spider nevi, ecchymoses, dilated veins, hair.

The abdomen: Ascites, hepatomegaly, splenomegaly, caput medusa, dilated vein, stria , scratch marks.

Gentalia: Testicular atrophy **lower limps:** pedal edema **Brain :**encephalopathy**.**

Note : you should know the causes of : clubbing, gynecomastia, acanthosis nigricans, lymphadenopathy, hepatomegaly, splenomegaly , hepatosplenomegaly, Ascites, SBP, encepgalopathy.

Examination for ascites : (2 maneuvers)
shifting dullness , fluid thrill google both them :P

Secondly: CARDIOVASCULAR SYSTEM.

2 Types of Examination: complete cardiovascular or just precordium Examination

complete cardiovascular:

These instructions have to be done in every examination whatever it is!

- ✓ Explain to the pateint what you are going to do.
- ✓ your hands should be warm, also your stethoscope.
- ✓ Position of the pt. : the pt should be centralized in the bed lying on one pillow.
- ✓ Stand on the Rt. Side of the bed.

Then start:

4- Introduce yourself to the patient.
5- Take permission.
6- Take privacy.

Describe the position of the pt, General appearance, mental state, body built, complexion and the associations and surrounds.

By inspection the pt laying flat in 45 degree ,Looks well\ill ,oriented ?(time, place, persons), conscious?, comfortable?, cooperative? ,not dyspnic?, not tachypnoeic?, cachectic?& the Resp. rate is ……,.
Body built of the pt. ,, complexion(cyanosed ?, pale ?, jaundiced ?

Describe the associated and surroundings (canula, IV line, O2 mask, urine cath … note: (u should stand infront of the pt's bed).

Face: pale , malar rash (not cross nasal brigde)

The eyes:

- Jaundice, congunctival hemorraghe
- Pale
- Xanthelasma

Mouth: central cyanosis (look to the base of the toungue)

The neck:

- Carotid or internal juglar Pulses
- JVP (measure it, https://www.youtube.com/watch?v=MZKSkVSbH8k)
  - know the difference between carotid & juglar pulsation-
    multiphasic - non-palpable- occludable - *varies with respiration).*
  - *(a)wave absent in atrial fibrillation- giant (V) wave in aortic stenosis- canon(v) wave in AV dissociation, complete AV block.*
  - *congested pulsatile juglar venous in congested heart failure but congested non- pulsatile in SVC obstruction.*
- Lymphadenopathy
- Thyroid (visible goiter)

The hand :

- Clubbing
- Splinter hemorrhage
- Capillary pulsation
- Osler nodules
- Janway's lesions
- Peripheral cyanosis
- Vital signs : Measure the pulse (rhythm , rate, volume , comparison, other pulsation) & measure the Blood pressure (https://www.youtube.com/watch?v=f6HtqolhKqo)

The lower limbs:

- Edema
- Peripheral pulsations
- Cyanosis

The abdomen: (I have to examine liver ,spleen & for ascites but the examiner will say skip this!)

- Hepatomegaly
- Splenomegaly
- Ascites

The chest: (you do not have to examine just say !)

- Basal crackles
- Pleural effusion

- Gynecomastia (drugs, cardiac cirrhosis).

Local exam of the precordium: (most likely OSCEI EXAMINATION FOR 4TH YEAR)

1- Inspection:

- Shape, deformity, precordial bulge/pulsation due to- (RVH since childhood – massive pericardial effusion)
- Skin- primary or 2nd skin lesion
- Scars in 3 areas: 1-mid sternal :PDA, TOF in children ,CABG, Valve replacement 2-lateral to sternum in valvoplexy : 3- supralateral : devices like ICD, CRT.
- Gynecomastia
- Visible pulsations
- Hair distribution
- Type of respiratioan- thoracoabdominal or abdominothoracic)

2- Palpation: (ask the pt if there is any pain)

- Apex beat - feel it & localize its intercostal space if not felt the DDx is: behind rib, obese, pleural effusion &pericardial effusion)
  comment: gentel to tab or thristing, diffuse or localized
- Thrill over five cardiac areas but heave just left parasternal area.
  if heave present means RVH.
- Other pulsations(pulmonary area, aortic area, parasternal Rt. And Lt. , epigastric.

3- Auscultation: (Five areas, 2 radiations, 3 manouvers)

- Five areas: Mitral, Tricuspid, Pulmonary, 1st aortic, 2nd aortic.
- Radiations: axilla & catoid.
- Manouvers: 1- over **T area** take deep inspiration & stop it if murmer increase intensity then its TR.
  2- over **M area** , move pt to left if the murmur increase with expiration then its MR.
  3- Over **2nd aortic** area take deep breath & exp. It then take deep breath.

Comment : normal heart sound, no murmur , no added sound.
Added sounds (click, opening snap, gallop)
Murmur (comment on)
Timing – Character – Propagation – Grading - Site of max. intensity - Relation to posture - Relation to inspiration -Pericardial rub

What is your DDX: it depends **ejection systolic** or **pansystolic murmur**.

if murmur is heared at **base** then its ejection systolic murmur so, the DDX IS :

1-Aortic stenosis (AS): max. intensity at 1st aortic area and radiated to carotid artery , muffled 2nd HS ,.

2-pulmonary stenosis (PS): max intensity at pulmonary area , muffled 2nd HS, thrill ,harsh ejection systolic murmer.

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3-HOCM : max intensity at left sternum border , Normal 2nd HS , jerky pulse.

4-Atrial septal defect (ASD) :

murmur due to overload not due to shunt between the atria

2nd HS: Wide fixed Splitting(lub da dub):

- fixed : as it does not change with respiration due to equilibrium between venous return & shunt , once the one increase the other decrease & vice virsa.
- wide : as pulmonary valve needs much time to close.

5- Innocent murmur: features: always systolic, on pulmonary area, faint 1st or 2nd degree, no radiation , change with position & respiration.

common in : children , pregnancy , hyperdynamic circulation.

if murmur is **heared** at apex , its **pansystolic** murmur so the DDx is:

1- Mitral regurge (MR) : muffled 1st HS , radiated to axilla .

2- Tricuspid regurge (TR) : muffled 1st HS , NO radiation , increase with inspiration.

3- Ventral septal defect (VSD):) (أهرش واحد) harsh all over the pericardium best at left sternal border , thrill.

Thirdly: CHEST EXAMINATION

Examination of the local chest:

A- The anterior chest:

These instructions have to be done in every examination whatever it is!

- ✓ Explain to the pateint what you are going to do.
- ✓ your hands should be warm, also your stethoscope.
- ✓ Position of the pt. : the pt should be centralized in the bed lying on one pillow.
- ✓ Stand on the Rt. Side of the bed.

Then start:

-Introduce yourself to the patient.

-Take permission.

-Take privacy.

1- Inspection:

Stand infront of the bed:

- Symmatery movement - No using of asccerory muscle.
  - No muscle retraction.
  - no muscle induration.
- Type of respiration & measure RR.
- Chest deformity : (pectus carinatum, pectus excavatum, AP diameter - barrel chest "vertical diameter more than transverse).

Start saying this (by inspection, there is symmetrical chest movement, with normal chest shape, No pectus carinatum, No pectus excavatum, and the anteroposterior diameter is related to the transverse diameter, so NO barrel chest. The type of respiration is (… according to the sex of the pt…), he/she does not use accessory muscles and there is no indrawing of intercostal, supraclvicular or subcostal muscles.).

NOW stand on the Rt. Side and describe if there is :

- Skin (dilated veins – scars – primary or 2nd skin lesion – abnormal/visible pulsations(apex beat, epigastric) – hair distribution – gynecomastia- scratch marks - spidernevi)

2- Palpation: (ask the pt if there is any pain)

Note the causes of tracheal deviations.

a- Superficial palpation (NO mass, Temp. , NO tenderness If there name the rib #, costochondritis, surgical emphysema,).
b- Chest expansion.
c- TVF (only for dr waleed).
d- Pulsations : 3 figures pulsation If palpable? (right:liver pulse, middle:aorta, left: right ventricle hypertrophy) & apex beat . NOTE/ Apex beat impalpable in ?? (COPD) mnemonics – C: COPD – O:Obesity – P: Pleural effusion, pneumothorax, pericardial effusion& behind the rib – D: Dextrocardia.
e- Take special permission to palpate the trachea position and the tracheal tug and cricosternal distance.

3- Percussion (apex, axilla >>> do not miss) Don't forget to percuss the above clavicles, axillae from anterior the findings as the followings:
-resonant : normal
-hyperresonant(Air) : COPD, Exacerbated asthma, pneumothorax
-Dull(solid): consolidation, collapse, fibrosis.
-Stony dull(fluid): pleural effusion, hemothorax.

4- Auscultation.
-Breathsound: vascular – brochial – tracheal.

-Added sound: Crackles(rales, crepitation), wheezing(ronchi) may be difuse or localized, pleural friction rub.

Note: you have to comment : the breath sound is vesicular equally bilateral No added sound.

When u examine a female, displace her breast (gently) slightly laterally for TVF, Percussion and auscultation.

B- <u>The posterior chest:</u>

The patient is in sitting position, exposed to the waist, your position is in the midline posterior to the patient.

1- Inspection :

- Ask the pt to take a deep breath to note the symmetry.
- Chest deformity :the shape of the chest (Scoliosis, Kyphosis, List, Kyphoscoliosis (causes of kyphoscoliosis are : idiopathic, childhood poliomyelitis, spine TB .
- Skin : Scars, skin discoloration, spider nevi, localized masses.

2- Palpation:

Ask If there is any pain

- Superficial palpation: tenderness, mass temp.
- Chest expansion (normal 2.5 – 5)
- tactile fremitus : *Palpable vibrations transmitted through the bronchopulmonary tree to the chest wall when the patient speaks.*

  increased in consolidation and decreased in(COPD, fibrosis, pleural effusion, FB obstruction, pneumothorax, thick chest wall)

3- percussion:

- resonant : normal
- hyperresonant : COPD, Exacerbated asthma, pneumothorax
- Dull: consolidation, collapse, fibrosis.
- Stony dull: pleural effusion, hemothorax.

Do Not forget to percuss the lung apex and the axilla. خلي المرض يحضن اكتافه

4- auscultation:

Avoid auscultation within 3 cm of the midline anteriorly or posteriorly.

- Breath sounds: if u find bronchial or bronchoalveolar (vocal resonance)u should listen for the followings: لو سمعت وكان في مكان في باثوجي اسمع المكان والي حواليه تحديدا (end inspiration , early expiration)
- Bronchophony ٤٤ يقول
- Egophony ٣ بالهمس ٢ ١ يقول
- Whispere

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Fourthly :THYROID EXAMINATION

These instructions have to be done:

- ✓ Explain to the patient what you are going to do.
- ✓ Your hands should be warm, also your stethoscope.

Then start:

-Introduce yourself to the patient.

- -Take permission.
- -Take privacy.
- - describe to the patients what you are going to do in advance.

Describe the position of the pt, General appearance (irritable, anxious, fidgety) mental state, body built, complexion and the associations and surroundings.

1. General:
   - Hand: - sweaty
     - tremors(put paper over the patient's hand to examine that)
     - palmer erythema, dry skin
     - muscle wasting
     - clubbing
     - pulse +BP (part of vital signs)
   - Face: -loss of eyebrowse hair (distal third part)
     - eyes manifestation: - lid lag (eyeball get down more quickly than eye lid)
       - lid retraction(sclera visible above the iris)
       - chemosis (edema in conjunctiva)
       - ophthalmoplegia : test it by "H" examination.(usually unable to raise the eyeball upward &laterally- sup rectus, lat rectus& inf oblique)
       - exophalmous(ant. Displacement of eye , test it by standing beside the pt & look to his eyes)
2. Thyroid itself:

   Inspection:

   - If the lump is visible! Comment: **s**ite – **s**hape – **s**ize – **s**urrounding tissue.
   - Previous Scar – dilated veins – abnormal pulsation
   - 3 tests should be performed:

     -<u>Drinking water</u> & notice the movement of lump if seen!

     -<u>Getting tongue out &</u>notice the movement of lump if moving with tongue – thyroglossal cyst.

     -<u>Pamberton sign :</u> raise your hand above your head- looking for substernal goiter the test is +ve if happen flushing all over the face & neck veins distended<u>.</u>

   Palpation: (ask the pt if there is any pain)

   From in front: -palpate surface – shape – size – surrounding tissue –edge –

Pulsation – fixation (يحرك راسهagainst resistance).
-No tenderness – Consistency (firm- rubbery – soft) – Temp.

From behind: - the same but to be more accurate (Do the drinking water and the getting the tongue out tests again)

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- (say I have to examine all the neck LN)
- Asses the position of trachea.

(e.g: by inspection and palpitation: 15*3*2 Multi-nodular swelling located in the anteriorly in the neck, the largest nodule in the left side, the swelling has an irregular shape and a smooth surface, is firm in consistency, non-pulsatile, moving with swallowing but not with the tongue protrusion

Percussion: -above &below clavicle and on sternum (looking for dullness)

Auscultation: listen over the swelling – may listen to systolic bruit (rare).

Note: LN + Carotid pulse+ inspect legs for pretibial myxedema you can do them in palpation or when you finish.

3. Finally comment: I have to examine the nervous system & cardiovascular system.

   This video may be helpful! https://www.youtube.com/watch?v=ziaYBkgEZNU

FIFTHLY: LOWER LIMP EXAMINATION

These instructions have to be done in every examination whatever it is!

- ✓ Explain to the pateint what you are going to do.
- ✓ your hands should be warm, also your stethoscope.
- ✓ Position of the pt. : the pt should be centralized in the bed lying on one pillow.
- ✓ Stand on the Rt. Side of the bed.

Then start:

-Introduce yourself to the patient.

-Take permission.

-Take privacy.

Note :(Expose the 2 limps to midthigh)

- By inspection comment always the positive first then negative sign.

1- skeletal – deformity (e.g: drop foot, clow toes….)

2- joints – swelling, deviation , deformity

3- skin –skin pigmentation

- scratch mark

- scars (old/new I'd like to ensure it, site)

- dilated veins

- trophic changes –(hair loss – shining skin – muscle wasting – skin scaling & crusting – onchylolysis" nail separate from nail bed" – onchylomycosis " thickening of the nail plate with color changes usually whitening)

- swellings(unilateral, bilateral diffuse throughout the lower limbs ,

- 5 tests : 1- test for the Temp. & Tendrness of the leg – do it by zig zag palpation of both legs by dosum of your hand.

2- measurement of both legs (technique: below tibial tuberosity 10cm , malleolus above 15cm , significant differences more than 3 cm bilaterally).

3- test for edema - technique: 1- ask the pt about the any leg pain
2- press against the shaft of tibia
3- eye contact with pt
4- feel then comment like: there is pitting

edema in left leg.

5- if you don't find edema on shaft of tibia then go down until dorsum of foot &test there to be sure there is no edema.

Note : don't forget to test BOTH legs!

4- burger test (ask the pt to raise his leg 90 degree & noice the change of color if pale before 90 degree means there is ischemia in the leg << 20 degree means sever ischemia

5- ankle brachial index: 1.2: diabetic

1-1.2: normal

.5 -.8 : moderate arterial disease

<.5: sever arterial disease

4-Nails :- clubbing – koilonychias – onchylolysis – onchylomycosis , peiphral cyanosis , spliter hemorraghe

- DO capillary refill test normally less than 2 second.

5- Between the digits: (interdigital examination) – fungal infection e.g tinea pedis

6- Pulses: - dorsalis pedis/ using the pods of your middle fingures, feel in the middle dorsum of foot lateral to extensor halluces longus.

- post. tibial pulse: 2cm below &behind the middle malleolus.
- popliteal pulse: - flex the pt knee
  - place your thumb infront of the pt's knee & your figure behind
  -(if you don't feel it , its ok , its difficult to palpate)

-femoral pulse: palpate at mid inguinal point – use your pods of your index &middle figure.

FINALLY :I have to examine inguinal LN ,Nervous system.

SPESCIAL CASE : Diabetic foot.

4 Findings: - gangrene 2types – dry , wet
- amputation
- ulcer
- iatrogenic fissue
- or nothing just trophic changes.

you have to do all the lower limp examination as said before , plus you have to describe the finding:

if its ulcer - inspection : -- site
-- size
– shape
– surrounding
– floor – margin

e.g: there is wound in right sole foot, approx. 2-3 cm , circular in shape, with healthy granukation tissue, pinched edge with red margin.

- palpation : - base of ulcer
.- mobile or not
- temp
- tenderness
- depth

also in vascular case e.g: diabetic foot- you have to measure blood pressue& listen for bruit in aorta, renal &common iliac artery.

Important question you may asked in vascular case(Diabetic foot):

1- causes of ischemia?, risk factors of ischemia?
2- investigation - general: - glucose, RBS
- Lipid profile
- local: - Doppler
- doplex
- arteriography
- CT angiography
- ankle- brachial index

3- treatment: - consevatives e.g walking , physiotherapy
- pharmacological – antiplatlets
- vasodilator
surgical: - stent
- bypass

BREAST EXAMINATION

These instructions have to be done :

- ✓ Explain to the pateint what you are going to do.
- ✓ your hands should be warm, also your stethoscope.
- ✓ Position of the pt. : the pt should be in 45 degree position..
- ✓ Stand on the Rt. Side of the bed.

Then start:

-Introduce yourself to the patient.

-Take permission.

-Take privacy

Note: (stand infront of the bed)

1- Inspection - to the both breast: - size
- symmetry
- skin (pigmentation – visible skin tethering)
- number(duplications)

- to arealo & nipple: - primary or 2nd skin lesion ?
- No destruction – No inversion – No displacement – No deviation – No duplication – No discharge.

e.g : the both breasts look symmetrical , normal in size & shape no skin pigmentation or visible skin tethering - the both areola looks normal , the both nipple no destruction , inversion , deviation , duplications or discharge.

- to chest wall: no chest deformity (pectus carinatum, pectus excavatum) , no scars or dilated veins)

2- Active inspection : (2 tests)
- ask the pt to raise his arms above his hand to see tethering of carcinoma!
- ask the to press his hands against her hips to tense pectoralis m. to see invisible swelling!
- inspect the axilla , arms & supraclavicular fossa.

3- Palpation: note - (<u>palpate normal breast then the diseased one</u>)
- (your right arm with pt's left arm &vice versa)
- (should palpate against the chest wall)
- palpate the for quadrents of the breast, areola , nipple &axilla(axillary- ant, , lateral , post medial Lymph nodes groups)

Finally I have to examine the abdomen (looking for live mets.) & the back (looking for bone mets).

<u>Good luck</u>