Cardiovascular Physical Examination Check List

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https://youtu.be/XU_xeUMJ3Zc⭐

Introduction

Introduce yourself
Take a permission
Ensure the privacy
Check if you need a chaperone
Check Temperature and Light
Hand hygiene
Exposure: above Waist
Position: 45° degrees

General look

- From right side of the patient :

comment on patient position in bed , level of consciousness, alert, orientation ,looks well or ill, breathless or cyanosed , distressed or frightened

💎***Comments***:

The patient is sitting at 45 degrees , Comfortable, conscious , alert, oriented to place time ane person, No attachment to medical equipment, Not cyanosed , Not in distress, Not tacypnic

Vital Signs

Blood pressure
Heart Rate
Respiratory Rate
Temperature
O2 Sat
BMI

Face

-eyelids :xanthelasmata
-iris: corneal archus (cholesterol deposition)
-conjunctivae :petechiae hemorrhage and pallor
-fundus: DM , HTN changes , roth spots using fundoscopy
-mouth : central cyanosis in tongue or peripheral in the lips
-malar flush on cheeks

💎***Comments***:

No Xanthelasmata, No corneal archus, No pallor , No petechial hemorrhage, I need fundoscopy to check HTN, DM changes and Roth spots , No malar rash, No Central & peripheral cyanosis

Hands

•inspect:

-nails: 1) tobacco staining 2) cyanosis 3) clubbing 4) splinter hemorrhages
-palms: 1) janway spots 2) Osler nodes 3) pallor 4)palmar erythema
-Dorsum : 1) petechial rash 2)Xanthomata
-IV Drug use sites
-Tremor

💎***Comments***:
No tar staining, No cyanosis, No clubbing, No splinter hemorrhage, No pallor, No palmar erythema No Osler nodes, No janway nodes, No petechial rash, No xanthomata, No flabbing tremor, No fine tremor, No IV drug abuse sites

•Palpation:

-Temperature
-Dry/ Sweaty
-Capillary refill
-Pulses → Bilateral

1) radial pulse
- Located lateral to flexor carpi radialistendon, feel with 3 fingers
- count for complete 1 min to calculate the Rate and check the Rhythm and compressibility
- feel on both sides simultaneously for radio-radial delay
- collapsing pulse: using base of fingers, Ask about shoulder or arm pain first, elevate hand above patient's head
- look for radiofemoral delay
- calculate pulse defecit
  HR by auscultation - radial pulse manually(normally not more than 10 beats difference)

💎***Comments:***
For example Rate 80 beats per minute , regular rhythm , Normal volume, normal Character (No collapsing pulse, No pulse deficit, No radioradial delay, No radiofemoral delay) , Compressible

2) brachial pulse :
- feel it medial to biceps tendon in antecubital fossa by THUMB ,rt hand of the examiner measures rt brachial pulse of the patient.

💎***Comments:***
Normal volume, Normal character, compressible

3) carotid pulse :
- feel it at angle of jaw , anterior to sternocleidomastoid muscle
- facing the patient ,rt hand of examiner measures left carotid pulse of the patient
- use 2 fingers GENTLY, NEVER feel both sides together!
- auscultate for bruit while the patient holding breath.

💎***Comments:***
Normal volume, Normal character, compressible, No bruit

4) femoral, popliteal, post tibial& dorsalis pedis pulses

- Femoral just mention
- The rest you will Know the details in PVS

JVP internal jugular vein pulsation

1) 10 points

- best seen on the right side of the patient
- Introduce Your self, Take a permission, Warm, Light, hand hygiene, privacy, Chaperone
- position the patient at 45 degrees
- exposure is above the waist

2)Inspection

- rest the head on a pillow, head slightly tilted to the left ,look tangentially, you may use a torch.

💎***Comments:***

Rapid inward movement, Two waves per pulse

3)Palpation

💎***Comment:***

Impalpable

4)Special Maneuvers

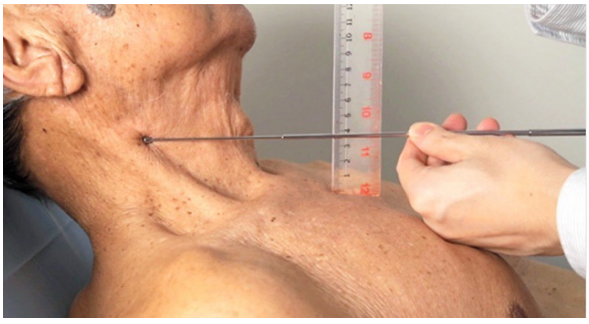
- compress at the root of the neck, it will disappear with pressure
- Ask the patient to take breath followed by expiration (decreases with inspiration and increases with expiration)
- ask the patient to lie flat (increases with lying flat)
- ask the patient to sitting (decrease with sitting)
- abdominojugular reflex (press above right upper quadrant area for 10-30 seconds, keep compressing till you see it up to 30 seconds)

💎***Comments:***

Disappear with neck compression, Increase with expiration, decrease with inspiration, increase with lying flat, decrease with sitting, +ve heptojugular reflex (increased JVP)

5) Measure JVP

- It is the vertical height in centimeters between the top of the visible pulsation & the sternal angle + 5 cm, the unit is cm water
- Normal is less than 9 cm water



The precordium

1) 10 Points

- Introduce Your self, Take a permission, Warm, Light, hand hygiene, privacy, Chaperone
- exposure is above the waist, patient is lying in 45 degrees

2) Inspection

A) From foot of the patient :

💎***Comments*** :Symmetrical , Symmetrical bilateral Chest Movement with respiration , No chest deformities (pectus carinatum, pectus excavatum)

B) From right side of the patient :

Hair distribution, skin lesions, scars (look for midline sternotomy scar which indicates CABG or aortic valve replacement, left submammary scar which indicates mitral valvotomy, infraclavicular scar for implantale devices like pacemakers, ICDs), dilated veins, visible pulsation & apex beat (you may use torch, lean at the level of the bed to see pulsation)

💎***Comments:***

No scars , No skin lesion, Normal male pattern of hair distribution, No visible dilated veins, No visible pulsation,

3) Palpation :

Don't forget eye contact, ask about painful areas, warm your hands, take a permission

A) General palpation using the flat of your rt hand over the precordium for general impression of cardiac impulse

💎***Comments***:

No subcutaneous emphysema, No masses , No tenderness

B) Allocate apex beat: first with fingers parallel to intercostal spaces then locate it with 2 fingers, roll the pt to the left if not palpable

💎***Comments:***

Normal position is 5th IC space at midclavicular line, gently tapping apex beat

C)Palpate for heaves with heal of right hand firmly over TWO areas :left lower parasternal area with holding breath on expiration for right ventricular hypertrophy (its name is left parasternal heave), & at the apex for left ventricle hypertrophy.

💎***Comment***: No left & Right heaves

D)Palpate for thrills(palpable murmurs) with the palmar base of fingers over THREE areas: the apex, both sides of sternum (hands placed vertically).

💎***Comment:***

No thrills

4)Auscultation

- you should keep your thumb on carotid while auscultating for identification of s1, s2, & timing of murmurs; s1 barely precedes carotid upstroke.

A) Auscultate with the diaphragm over :

1-All valves areas (4 areas: aortic rt 2nd IC, pulmonary left 2nd ICs, tricuspid left lower sternal edge, mitral at the apex)
2-Carotids while holding breath for radiation of aortic stenosis murmur
3-Left Axilla for radiation of murmur of mitral regurgitation
4- ask the patient to sit & lean forward, holding breath on expiration, lessen with the diaphragm over the aortic area (rt 2nd ICS) & 2nd aortic area (ERB'S area: left sternal border in the 3 ICS) for the murmur of aortic regurgitation.

B) Auscultate with the bell over:

-the apex (for mitral stenosis, s3, s4 sounds)
-lower left sternal border (for tricuspid stenosis &rt sided s3 in right ventricular failure)
-roll the patient to the left side, lessen by the bell over the apex for murmur of mitral stenosis.

💎***Comments:***

- Normal S1, s2, Normal physiological splitting of s2
- No S3, s4, No Added sounds (opening snap, ejection click, friction rub)
- No Murmurs (if any you should comment on location, radiation, timing, character & pitch)

Finally say; I will check

1-Lung bases auscultation for crackles
2-Abdomen for hepatomegaly, ascites, sacral edema
3-Lower limb for edema, ulcers, pulses.

Peripheral Vascular Examination

1) 10 Points

- Introduce Your self, Take a permission, Warm, Light, hand hygiene, privacy, Chaperone
- exposure is under the mid thigh , position lying flat

2)Face

💎Comments:

No Corneal arcus ,No xanthelasmata , No Horner's syndrome, No Hoarseness of voice, No visible dilated veins in the neck, shoulders and anterior chest

3) HANDS AND ARMS:

-By inspection

💎***Comments:***

No Tar stain, No skin Discoloration,No Fingertips scars, No nail pitting, No ulcers, No Calcinosis and nail fold capillary loops, No Wasting of the small muscles of the hands

-By examination

Check the (**Temperature** ; **sweaty/ dry**; Radial and brachial **pulses** to check the Rate, Rhythm, character, volume, compressability; examine **BP** Bilateral)

4) Abdomen

-By inspection

💎***Comments:***

No Epigastric/ umbilical pulsation ,No mottling of the abdomen, No visible weight loss

-By examination

Palpation for any palpable pulsatile mass over the aorta

💎***Comment***: No palpable pulsation

5) Lower limb

-By inspection

💎***Comments***:

Symmetrical, Normal Hair distribution, No scars, No shiny skin, No muscle wasting, No ulcers, No onycholysis, No deformities, No fungal infection, No pitting, No swelling, No color changes, No Superficial venous dilatation

-By examination

Temperature by dorsum of the hands —> symmetrical bilateral temperature (warm/Cold)

Gently squeezing —> No tenderness

Capillary refill —> Normal capillary refill within 2 seconds

Pulses

POPLITEAL PULSE:
-lying flat, knee flexion 30 digree
-both thumbs in front of the knee, other fingers from behind and press Firmly.
💎***Comment***: palpable popliteal pulse

POSTERIOR TIBIAL PULSE:
-Located 2 cm bellow and 2 cm behind the medial malleolus using the pads of Middle three fingers.
💎***Comment:*** palpable Posterior tibial

DORSALIS PEDIS PULSE:/
-using the pads of three middle fingers on the middle of dorsum of the Foot lateral to the tendon of extensor hallucis longus.
💎***Comment:*** Palpable dorsalis pedis

FEMORAL PULSE (Just know it theoretically)
-against the head of femur
-use two fingers (index and middle)
-location 2.5 *2.5 cm inf.and lateral to pubic tubercle
-check radio femoral delay
-Auscultate to femoral bruits over the femoral artery using diaphragm.

Burger's Test —Test for lower limb ischemia
The pt lying flat, stand at the foot of the bed.
Raise the pt's feet and support the legs at 45 degree for 2-3 min.
Watch for pallor with emptying of the superficial veins.
Ask the pt to sit up and hang the legs over the edge of the bed.
Watch for reactive hyperemia on dependency THE LOSS OF PALLOR AND SPREADING REDNESS IS A POSITIVE TEST.
💎***Comment***: Negative burger's test

ANKLE TO BRACHIAL PRESSURE INDEX ABPI: (Bilateral)

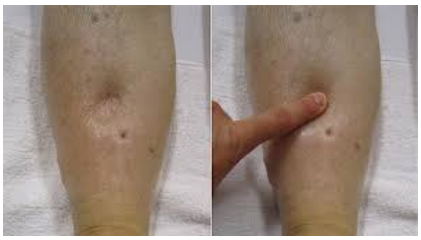
-Use hand held Doppler and a sphygmomanometer.
-Hold the probe over the posterior tibial artery. Inflate BP cuff round the ankle.
-Note the pressure when Doppler signal disappears. This is the systolic pressure in that artery
-repeat same the procedure over the brachial artery or the radial artery.
NORMALY: the ratio between the pressure in the pedal artery and brachial artery is more than 1.
ABNORMAL FINDINGS: the ratio less than 0.9 indicates intermittent claudication.. the ratio less than 0.4 indicates critical limb ischemia.
-Note : diabetic pts with calcified vessels may have falsely negative test..

DVT

GENERAL INSPECTION:
-stable, breathless, pain
-inspect for risk factors: pregnancy, immobility (aids), bed ridden, cast
Signs of recent surgery/trauma.

LEG INSPECTION:
-In addition to the above of inspection check again while the pt is standing
skin and color changes.. swelling and differences, venous dilatation.

Leg palpation
-pitting edema at the shin of tibia :
If present comment about extension and grade &
Check JVP



-measure leg circumference 10 cm below tibeal tuberosity and
Compare between the two legs (less than 3 cm not significant).