Lower limb examination

Position is flat, 45 degrees and Dependent position.

Exposure: whole leg and abdomen.

Inspection

-Color changes

-Muscle wasting (do calf circumference 10 cm below the tibial tuberosity and compare bilateral)

-Hair distribution

-Thin and shiny skin

-Venous guttering

-Superficial dilated veins

-Swelling and comparison bilateral and the level of swelling

-Nail changes: Thick , brittle , onychomycosis

-Ulcer

If ulcer is present, comment on :

Site, size, Margin (regular or irregular), Depth, Base of ulcer (Granulation tissue, necrotic

tissue, sloughy ..etc.), surrounding skin

-Don’t forget: Open between toes to inspect for fungal infections

-Elevate the leg to inspect the heel for ulcers

Palpation

-Muscle tenderness (ensure Eye to eye contact, compare same level bilateral each time)

-Temperature (Examine with dorsum of the hand, compare same level bilateral each time)

- If edema present, detect if it is pitting or non-pitting and ask to examine JVP

-Capillary refill:

pressure on the nail until the color return to pallor then check that the color return to its

normal color within 2 seconds.

-Pulses

Femoral pulse:

-against femoral head in the mid-inguinal point

-Use the middle and index finger

-Check for Radio-femoral delay

-Auscultate femoral artery using diaphragm of stethoscope to check for femoral bruit.

Popliteal pulse:

-Knee flexion for 30 degrees

-Both thumbs are on the tibial tuberosity, other fingers are in the popliteal fossa and press

(if palpated easily then think of popliteal artery aneurysm)

-Posterior tibial artery:

2cm below and 2 cm behind the medial malleolus using pads of middle three fingers

-Dorsalis pedis pulse:

Pads of three middle fingers lateral to the extensor hallucis longus

Special test:

- **Beurger's Test (Indicates PAD):**

patient is on supine position

elevate the leg of the patient 45 degrees for 2-3 minuteswatch for pallor and venous guttering

Ask the patient to sit up and hang their legs over the edge of the bed

watch for reactive hyperemia.

-**Ankle brachial pressure index (ABPI)**

Needs hand-held doppler and Sphygmomanometer

Normal ABPI > 1

Abnormal ABPI <0.9

DVT Examination

General inspection

-General condition of the patient:

stable, breathlessness, pain

-Vital signs

-inspect for DVT risk factors: pregnancy, immobility, bed ridden, Cast, signs of recent trauma/surgery

Leg examination

inspection

While patient is standing:

Skin and color changes

Swelling (compare bilateral, level of swelling)

Venous dilation.

Palpation

Tenderness (keep eye to eye contact)

Temperature (by dorsum of the hand)

Edema (pitting or non-pitting edema)