Diabetic Foot / Foot Ulcer Examination



Introduction

- <u>W</u>ash hands, <u>I</u>ntroduce self, ask <u>P</u>atients name & DOB & what they like to be called, <u>E</u>xplain examination and get consent
- Expose feet

Inspection

- General: gait, shoes (flat heel, pattern of wear)
- **Skin:** vascular insufficiency (hair, pallor), rubor/corns/callous at pressure points, texture, fissures, skin breaks/lesions/ulcers, diabetic dermopathy, infection (swelling, erythema, gangrene, cellulitis), oedema, venous eczema/lipodermatosclerosis
- Nails: dystrophic, ingrown
- Webspaces: cracked, infected, ulcers, maceration
- **Deformity:** claw toes, bony prominency, Charcot's joints (joint swelling, collapse of medial longitudinal arch due to "loss protective pain sensation")

Describe any ulcer: size and site, characteristics (shape, edge, colour), secondary features.

Palpation (ARTERIOPATHY)

- Temperature: use dorsum of each hand to feel up legs
- Pulses: femoral, popliteal, pos tibial, dorsalis pedis
- Capillary refill

Palpation (NEUROPATHY)

- Sensory: show patient how each feels on sternum before and get them to close their eyes
 - o Monofilament use monofilament fully out and use enough force to make it bend. Touch foot in multiple places.
 - 128Hz Tuning fork use fingers to twang end with prongs and hold circular base on the patient's joint. Start over big
 toe joint first and move proximally if patient can't feel it. Ask patient to tell you when they feel a vibration, and ask
 them to say when it stops (manually stop it)
 - Proprioception hold distil phalanx of big toe with a finger each side (while stabilising proximal phalanx with other hand). Ask the patient to look and show them the up and down positions. Now, ask them to close their eyes and wiggle up and down a few times, then stop and ask patient if it's up or down. If no proprioception, move to proximal joints until they can.
- Motor: muscle wasting, pes planus, pes cavus, Charcot joints
- Reflexes: ankle jerk
- Autonomic: sweaty, dry cracked skin

To Complete exam

- Thank patient and cover them
- "To complete my exam, I would examine do a full neurovascular examination and educate the patient"
- Summarise and suggest further investigations you would do after a full history
 - o ABP
 - o Doppler arterial pulses
 - o Blood glucose
 - o HbA1C

	Venous	Ischaemic	Neuropathic
Site	Gaiter region	Soles/ pressure areas	
Depth	Superficial	Deep	
Edges	Sloping	Punched out	
Base	Granulating	Sloughy & pale	Sloughy & bloody
Colour	Pink	Pale	Red
Pain	Moderate	Painful	Non-painful
Other characteristics	May be varicosities, venous eczema, haemosiderin deposits, lipodermatosclerosis	Loss of peripheral pulses	Sensory neuropathy



Neuropathic ulcer

Attribution: Creating the Ideal Microcosm for Rapid Incorporation of Bioengineered Alternative Tissues Using An Advanced Hydrogel Impregnated Gauze Dressing: A Case Series. The Foot and Ankle Online Journal 1 (9): 2.



Ischaemic ulcer
Used with permission from: Smith & Nephew. Arterial ulcer [online]. Available from: http://www.smith-nephew.com/global/images/other/country/1d3c46d1-9c814765-945e-16aad0aa39e2.gf (Accessed 26.06.2013)