Peripheral Arterial Disease (PAD)

- PAD is caused by the atherosclerotic process, and therefore is highly linked to cardiovascular disease
- Smoking and diabetes are the two biggest risk factors. Those who smoke or have diabetes have a 4-fold greater risk of PAD
- Has a spectrum of disease. **Symptoms** range from asymptomatic to intermittent claudication to Chronic Limb Threatening Ischaemia = CLTI (ischaemic rest pain; poor wound healing; gangrene)

Consider PAD if:
- Symptoms suggestive of PAD
- History of diabetes
- Non-healing wounds on the leg or foot
- Unexplained leg pain
- Patient needs to use compression hosiery
- Before undergoing any procedure on the leg or foot

Risk Factors for PAD
- Hypertension, Diabetes, Hyperlipidaemia, CVD
- Lifestyle: smoking, alcohol abuse, low physical activity, poor diet (high salt, high fat)
- FH, age, gender (male>female, risk increases with age)
- Stress/anxiety/depression
- Social determinants of health (poverty, social exclusion, illiteracy, air pollution)

Firstly is there evidence of acute ischaemia? (6 Ps= pallor, pulseless, paraesthesia, paralysis, perishingly cold, pain)

→ If 'Yes', then urgent surgical review and transfer to casualty for work-up

History and Examination
- Claudication pain=present with exercise and relieves with rest
- Ischaemic rest pain=present at rest, worse with elevation of leg, improves with movement or gravity
- Neuropathic pain
- PMH and RFs including cardiovascular disease
- Examination- colour and temperature of skin, hairless/shiny, hypertrophic nails, Buergers test, pulses, sensation, poor wound healing/ulceration or gangrene

Investigation

ABPI (Ankle Brachial Pressure Index)	
>1.4	Abnormal (calcified arteries)
0.9-1.09	Normal
0.41-0.9	Mild to Moderate PAD
<0.4	Severe PAD

→ If 'Normal', reconsider history and other possible diagnoses:
- Spinal stenosis
- Arthritis
- Venous claudication
- Chronic compartment syndrome
- Symptomatic bakers cyst
- Nerve root compression

If ABPI suggests PAD:
- Aspirin 75mg OD (or Clopidogrel 75mg) OD lifelong
- Statin lifelong, ideally high-dose (start atorvastatin 40mg OD and increase to 80mg if tolerated/possible)
- Manage risk factors
  - Smoking cessation
  - Diabetic control (see Diabetes guideline)
  - BP control (see Hypertension guideline)
  - Weight control
- Exercise (shown to improve walking time and relieve symptoms in claudication)
- Refer to general surgery/vascular review if severe PAD or features of CLTI (consider imaging+/- revascularisation or amputation)
- Analgesia (may need neuropathic agents as well as simple analgesia)

References

BMJ 2018;360:j5842; Up-To-Date accessed 2/11/23**;** NICE Clinical Guidelines No 147

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