KISS: Limb Threatening Ischaemia

References: BMJ 2013 BMJ 2018

Background:

- Missed diagnoses of limb ischaemia are common causes of litigation against GPs, as delays in diagnosis result in the avoidable loss of a limb
- Why is it missed? Often due to failure to be considered as a diagnosis, esp. younger patients
    - In many missed cases doctors have purported to have felt pulses that could not have been present - a 'weak' or 'faint' pulse is likely not present at all
- **Chronic limb threatening ischaemia** (CLTI) is particularly difficult to pick up, and although chronic in presentation **still needs immediate vascular review** to reduce risk of amputation:
    - It can have a slow, insidious onset and often no history of intermittent claudication
    - It is relatively rare; even in patients with intermittent claudication only 1-2% will go on to develop CLTI (a full time GP may expect to see 1 case of CLTI per year)

Assessment:

- Consider **acute limb ischaemia** in all cases of acute leg pain, including those under the age of 60 and without risk factors, if any of 'The 6 Ps' is present:
    - **Pain** – always present
    - **Pulselessness** – ankle pulses always absent (if pulse feels weak, you're probably not feeling it)
    - **Pallor** (or cyanosis and mottling) variable may be subtle, compare sides
    - **Perishing** coldness may be subtle, compare sides
    - **Paralysis** and **Paraesthesia** or reduced sensation are late, limb threatening signs
    - If limb ischaemia is a possibility - measure ankle blood pressure with a pocket Doppler and cuff; no Doppler signals mean a threatened limb requiring emergency referral
- Consider **chronic limb threatening ischaemia** and assess as follows:
    - **Persistent pain** in the forefoot and toes, typically worse at night and relieved by hanging legs down; typically patients are woken in the early hours with pain which is eased by hanging their foot down, and they may take to sleeping in a chair
    - **Non-healing foot wound +/- infection** (be aware patients with peripheral neuropathy may present with CLTI with NO pain due to the neuropathy)
    - Be aware **symptoms can easily be confused with other causes of foot pain** e.g. cellulitis, gout, arthritis and that the foot often looks pink or red with apparently normal capillary refill time when sitting with the foot down, due to hyperaemia
    - Foot pulses should be palpated but be mindful that there is a substantial false positive and negative rate even by experienced vascular surgeons
    - Do **Buerger's test:** lay patient down, elevate both legs to 45 degrees for 1-2 minutes and look for pallor; then hang legs down at 90 degrees and look for reactive hyperaemia
    - **ABPI is unreliable in suspected CLTI -** do not use ABPI in primary care to determine referral in patients in whom CLTI is suspected
    - Have a high index of suspicion in patients presenting with foot symptoms if they have risk factors for PAD - IHD, stroke, smoking, diabetes (esp. if peripheral neuropathy as symptoms will be masked)

Management:

- ALL cases of acute OR chronic limb threatening ischaemia need **urgent admission to vascular surgeon**