Diabetic Foot

• Very common clinical problem (and exam question)
• 25% of diabetics will develop a significant ulcer over their lifetime – resulting in more hospital stay days then all other diabetic complications combined
Etiology

Multifactorial

• Neuropathy

• Ischemia

• Infection
Etiology - Neuropathy

Neuropathy affects more than 50% diabetics

- Sensory loss – trauma results from reduced proprioception, light touch and pain sens
- Motor loss – loss of intrinsics changes mechanics – deformities and pressure points
- Autonomic neuropathy – dry, cracked skin promotes infection, also vasomotor dysfunction leads to shunting
Etiology - Ischemia

More than 50% diabetics get significant atherosclerotic disease

- "Large vessel PVD" – often with tibial involvement with relative sparing of proximal and pedal vessels
- "Microcirculatory" disease – intimal and basement membrane thickening
Ulceration

- Neuropathic – typical “mal perforans” ulcers, painless, deep, punched out over 1\textsuperscript{st}, 2\textsuperscript{nd}, 5\textsuperscript{th} MTP
- Ischemic – typically, digits or heel and often related to trauma (nail care, footwear, thermal injury etc)
- Infection – secondary infection of ulcer worsens by increasing local metabolic demands, secretion of procoagulants
Presentation

Patient will present will constellation of
- Ulcers – neuropathic, ischemic, both
- Infection
- Deformities
- Evidence of PVD, Neuropathy
Evaluation

• Questions
  – Is there associated deeper infection?
  – Will this heal?

• Investigation
  – Plain films
  – Duplex / Digital pressures
  – Transcutaneous O2
  – Nuclear Medicine
  – Arteriography
Treatment

• Preventive measures – footwear, cotton socks, nail care can reduce amputation rate by 40 to 80%

• Specific Measures
  – Local – debride, drain, local amputation, metatarsal head reduction
  – Revascularize where possible
  – Major amputation – where all else fails or no alternative