Introduction

- 5000 patients year⁻¹ UK
- High mortality and morbidity
  - Mortality upto 50%
  - (especially embolic causes)
- Morbidity
  - amputation
  - renal failure etc.

Causes

- Thrombosis native arteries or grafts (60%)
- Embolism (35%)
- Trauma (5%)

Causes

- Thrombosed aneurysm
- Aortic dissection
- Intrarterial injection
- Popliteal entrapement
- Arterial trauma
- Iatrogenic

Clinical features

- Pain
- Pallor
- Perishing with cold
- Pulseless
- Parasthesia
- Paralysis

Clinical features

**Ischaemic time**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Skin</td>
<td>&gt; 48hrs</td>
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<tr>
<td>Permanent muscle damage</td>
<td>&gt; 6hrs</td>
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<tr>
<td>Nerve damage</td>
<td>&gt; 30 mins</td>
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Important points - History

- Duration/severity of symptoms
- Previous history of PVD
- Previous vascular surgery
- Cardiac symptoms
- Known aneurysm
- Vascular risk factors
  - Smoking
  - Hyperlipidaemia
  - DM
  - IHD
**Examination**

- Pale and cold
- Glove & stocking distribution neuropathy
- Bier spots
- Mottling
- Tenderness
- Oedema
- Blistering

**Examination**

- Palpate ALL pulses
  - Presence
  - Grade

**Examination**

- Hand Held Doppler
  - ABPI
  - Waveform

**Making a diagnosis**

- Embolic
  - Sudden
  - No Hx PVD
  - (Opposite limb normal)
  - Identifiable source

- Thrombotic
  - Sudden/less acute
  - Claudicant
  - Abnormalities in other limb

**Management**

- Rapid definitive treatment is essential
- Brief Hx & Ex of salient points
- Definitive investigations
- Early treatment

**Treatment options**

- Expectant
- Anticoagulation
- Thrombolysis
- Embolectomy
- Arterial Reconstruction
Management 1

- Initial Ix:
  - FBC, Clotting, G+S
  - ECG, (CXR)
  - (Cardiac enzymes)
  - ABPI
  - Duplex
  - Arteriogram

- Initial Treatment:
  - Analgesia
  - Heparin
catheter
  - IV access + fluids
  - Consent

Treatment algorithm

- Sensory deficit
  - Thrombosis → Arteriogram → Thrombolysis
  - Embolism → Thrombolysis +/- others

Thrombosis

- Techniques
  - Antegrade
  - Retrograde
  - Pulse spray
  - Suction

- Agents
  - Streptokinase
  - Urokinase
  - t-PA

Complications

- Haemorrhage
- Embolisation
- CVA
- Death

Results

- 50-90% success