The interaction between endovascular intervention, open surgical arterial bypass, and wound care in the management of 560 patients with diabetic ischaemic foot ulceration

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Disclosure

Speaker name: Michael Edmonds

I have the following potential conflicts of interest to report:

- Consulting Crawford, Urgo Medical, Klox. Edixomed
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

I do not have any potential conflict of interest
Vascular Diabetic Foot Clinic
Three year data

• 560 patients with ulceration or tissue loss and peripheral arterial disease
• We recognised four syndromes based on differences between their
  • Presentation
  • Management
  • Outcome
Ischaemic patients (560)

- Neuroischaemic foot (NI)
- Critically ischaemic foot (CI)
- Acutely ischaemic foot (AI)
- Renal ischaemic foot (RI)
Total number of ischaemic patients

- NI: 482
- CI: 43
- AI: 4
- RI: 31
Four clinical syndromes

Presentation
Natural history
Management
Revascularisation
Wound care
Control of infection
Outcome
Limb survival
Neuroischaemic  Critically ischaemic  Acutely ischaemic  Renal ischaemic
Percentage of group revascularised

- NI: 37%
- CI: 86%
- AI: 100%
- RI: 87%
Revascularisation

Neuroischaemic feet 181/482

Critically ischaemic feet 37/43

P<0.05
Neuroischaemic Foot Revascularised (181/482)

Wound care
- Debridement
- Intravenous antibiotics
- Negative pressure therapy
- Wound closure

Treatment of infection

Revascularisation
- 116 Angioplasty
- 11 Bypass
- 54 Angioplasty and Bypass
- 2 Major amputations
Neuroischaemic Foot
Non-Revascularised (301/482)

- Limb survival 297
- Debridement
- Negative pressure therapy
- Wound closure
- Antibiotics

- Primary amputation 4
- Late presentation with severe sepsis
Femoral popliteal bypass
Major ankle, hind-foot and mid-foot deformity correction and fusion.
Post Reconstruction
Post-op angiography
Revascularisation
Critically Ischaemic Foot Revascularised (37/43)

Ischaemia

Revascularisation

- 16 Angioplasty
- 3 Bypass
- 18 Angioplasty and Bypass
- 2 Major amputations
Critically ischaemic
Non-revascularised (6/43)

• Primary amputation 4
• Overwhelming necrosis

• Severe cardiac failure; not fit for GA 2
• Treated conservatively
• Limb survived
Major amputation

Neuroischaemic feet  6/482
V
Critically ischaemic feet  6/43
P<0.001
Acutely Ischaemic Foot
Revascularised (4)

Revascularisation
- 2 Bypass
- 2 Angioplasty and Bypass
- 0 Major amputations
Renal Ischaemic Foot Revascularised (27/31)

Wound healing

- Debridement
- Negative pressure therapy
- Wound closure
- Antibiotics

Treatment of Infection

- Revascularisation
  - 19 Angioplasty
  - 2 Bypass
  - 6 Angioplasty and Bypass

- 2 Major amputations
Renal Ischaemic Foot
Non-Revascularised (4/31)

Limb survived 4

- Debridement
- Negative pressure therapy
- Wound closure
- Antibiotics
Summary

- Different syndromes of the diabetic ischaemic foot according to
  - Presentation
  - Management
  - Outcome
Summary

• Limb survival was achieved in 546/560 cases (97%)

• There were 14 major amputations – 8 primary

• 37% of neuroischaemic patients with ulceration/tissue loss needed revascularisation to preserve the limb
Neuroischaemic

Critically ischaemic

Acutely ischaemic

Renal ischaemic
Renal Foot
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