Medical Management of Limb-Threatening Ischemia: What to Do When Surgery Isn’t an Option
Threatened?

• Implies reversible ischemia in a limb that is salvageable without major amputation if arterial obstruction is relieved quickly.
When is Surgery Not an Option?

• Patient is too high-risk for surgery

• Patient does not have vascular surgical options available to improve arterial flow
Prohibitive Risk for Surgery
• Typically refers to open surgery

• Can also mean the patient cannot tolerate being supine for prolonged periods (angio)

• Anesthesia perhaps limited to sedation, local, and nerve blocks
Surgical Risk is Too Great

• Cardiovascular Risk Factors:
  – Diabetes
  – Tobacco use
  – Hypertension
  – Hyperlipidemia
  – Cardiac status
  – Carotid disease
  – Renal status
  – Pulmonary status
SVS Scoring System*

- **Cardiovascular Risk Factors:**
  - Diabetes (diet- vs insulin-controlled)
  - Tobacco use (quantity and duration)
  - Hypertension (controlled with >2 drugs)
  - Hyperlipidemia (diet- versus medication-controlled)
  - **Cardiac status** (CHF, angina, arrhythmia)
  - Carotid disease (stroke or TIA)
  - **Renal status** (creatinine, on dialysis)
  - **Pulmonary status** (FEV1<35% pred, on oxygen)
The Players

- Cardiology
- Anesthesiology
- Pulmonology
- Surgeon
Patient **does not have vascular surgical options** available to improve arterial flow
No Revascularization Options

- Major amputation required within 1 year in 40%
- Mortality as high as 20%
How to Manage
Concomitant CAD

• The most important aspect of pharmacologic treatment of this disease is the recognition that CAD accompanies PAD in the majority of patients.
  – CAD the greatest cause of M&M in these patients
  – Estimated to be 25-30% over 5 years in symptomatic PAD patients
Treat All Patients with PAD As If They Have CAD

• Measures to prevent MI are indicated:
  – Routine use of anti-platelet agents (aspirin)
  – Smoking cessation
  – Aggressive treatment of diabetes
  – Appropriate control of hypertension
  – Aggressive lipid lowering
    • Atorvastatin 40-80 mg, rosuvastatin 20-40 mg
### Guidance for High-Intensity and Moderate Intensity Statin Dosing

#### High-Intensity Statins
- Atorvastatin 40-80 mg
- Rosuvastatin 20-40 mg

#### Moderate-Intensity Statins
- Atorvastatin 10–20 mg
- Rosuvastatin 5–10 mg
- Simvastatin 20–40 mg
- Pravastatin 40–80 mg
- Lovastatin 40 mg
- Fluvastatin XL 80 mg
- Fluvastatin 40 mg bid
- Pitavastatin 2–4 mg
Wound Care
Hyperbaric Therapy
Biologic Therapies

• Gene Therapy
  – FGF plasmid injections

• Cellular Therapy
  – Stem cells or bone marrow aspirate

There are currently no FDA-approved gene or cellular therapies to treat CLI
Thank you