Acute limb ischemia (ALI) remains a significant problem

- Rates decreasing
  - 7.98/100,000 to 3.54/100,000
- Underestimate
  - Iatrogenic
  - Trauma

ALI is a clinical spectrum: the patient and the limb should be the focus of therapy, not just the arterial lesion.

What is the etiology?

- Embolic (embolos – Gr. “plug”)
  - Cardiogenic: decreasing in frequency but not gone
  - Myxoma
  - “Saddle embolus” – easily treated with femoral cutdowns: quick, minimal risk of distal embolization
- Thrombotic
  - Native artery with pre-existing stenosis
  - Bypass graft: prosthetic versus autogenous
- Mixed (thrombo-embolic) or Uncertain
- Iatrogenic: IABP/cardiac support devices + CFA ASO

In accessible artery, often simpler to surgically pull the “plug” and extract thrombus
Case: Occluded tibioperoneal trunk
HPI: 57 year-old man with 1 wk history of rest pain after iliac stents placed elsewhere
- Duplex examination shows patent iliac stents
- Occlusion of the below the knee popliteal/tibioperoneal trunk
- No Doppler signals, decreased motor and sensory function
PMH: A-fib (Pradaxa), HTN, HLD, type I diabetes, CHF, s/p AICD for ventricular tachycardia, s/p bilateral kissing iliac stents

Clot extraction devices have improved
- Chronic thrombus, likely
  - Lysis only less likely to be effective
  - Angiojet less effective in chronic thrombus
- Penumbra CAT-6 with the separator
- No alteplase

A contemporary study based on the U.S. National Inpatient Sample reported that: (1) embolectomy was associated with decreased mortality and amputation risk and that (2) fasciotomy was done in 4.3% of limbs coded for acute embolism and thrombosis of the lower extremities. Fasciotomy was more common (25%) in a concomitant, retrospective experience at an academic institution. Those requiring fasciotomy were also at greater risk of amputation and death, presumably reflecting more advanced ischemia.

APPROACH?: Left femoral artery exposure

STSG for medial fasciotomy. Healed. 3 mos postop. walks with AFO, independently.

SUMMARY: Flexible Approach to ALI is the Key

- ALI management depends on underlying cause, location, accessibility and details of presentation
- Device-related ALI often requires surgery (complex, delayed recognition)
- Embolic occlusions still generally do best with open surgical or hybrid approach
  - Acute saddle, common femoral and brachial emboli often best managed surgically
- Class IIa patients (marginally threatened) often do best with heparin and lysis to uncover and treat culprit lesion
- Most Class IIb patients, especially late presentation with advanced ischemia are best managed surgically
- You can’t perform a fasciotomy without surgery: 5-25% of ALI patients require such, esp. in tertiary care centers

Debate: Endo should be the first option for all CLTI Patients

FALSE!

Many CLTI Patients Will Be Better Served by a Bypass At Some Point In Their Course: When should Bypass be the Primary Procedure

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