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Ischemic Leg After Femoral Arterial Line Placement

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Conclusion
Severe peripheral arterial disease is likely to coexist in a patient with coronary artery disease and needs to be investigated preoperatively especially in a patient with physical inactivity.

Introduction
Patients with severe atherosclerotic peripheral vascular disease are at risk of developing ischemic complication following arterial cannulation. We report such a case from our institution.

Case Description
A 45-year-old partial wheelchair bound female with a history of muscle weakness, hypertension, smoking, and insulin dependent diabetes, presented with chest pain and was found to have a Non-ST Elevation Myocardial Infarction (NSTEMI.) Emergent catheterization showed triple vessel disease and she was scheduled for coronary artery bypass procedure (CABG). Following attempted insertion of a left femoral arterial line after induction of general anesthesia, she developed severe left leg ischemia. Aortogram revealed severe bilateral aorto-iliac occlusive disease. The CABG procedure was aborted and she underwent bilateral lower limb revascularization procedure. CABG was done a week later with an uneventful perioperative course.

Discussion
Risk factors for developing ischemic complications:1, 2
- Atherosclerosis
- IDDM
- Radial > femoral
- 18G>20G
- Multiple punctures
- Hematoma at cannulation site
- Prolonged Cannulation
- Vasopressor Therapy

Our patient had IDDM and severe undiagnosed peripheral vascular disease which predisposed her to develop severe ischemia during attempted femoral arterial cannulation.2

References
1. Critical Care 2002;6:198-204