Occlusive disease case

PROCEDURE:
1. CO2 abdominal aortogram.
2. Bilateral lower extremity arteriogram.
3. Angioplasty of right popliteal artery to 6 x 40 mm.
4. Angioplasty of right tibioperoneal trunk and peroneal artery to 3 mm.
5. Ultrasound-guided access to left common femoral artery.
6. Debridement of right foot gangrene, including skin, subcutaneous tissue and muscle.
7. Amputation of left 3rd toe to PIP joint.

Findings:
1. The abdominal aorta and bilateral iliac arteries are without stenosis.
2. The right common femoral and profunda are without stenosis. The prior right SFA stent is without stenosis. Severe recurrent focal stenosis of the popliteal artery at the knee. The anterior and posterior tibial arteries are occluded. Short occlusion of the right tibial peroneal trunk extending into the proximal peroneal with reconstitution distally. The dorsalis pedis and plantar arteries are reconstituted in the foot.
3. The left common femoral and profunda are without stenosis. The prior right SFA stent is without stenosis. Severe recurrent focal stenosis of the popliteal artery at the knee. The anterior and posterior tibial arteries are occluded. Single vessel runoff by the peroneal artery with moderate focal proximal stenosis. Imaging of the foot is non-diagnostic.

PREOPERATIVE DIAGNOSIS: History of peripheral arterial disease with new right foot gangrene and left 3rd toe ulceration.

POSTOPERATIVE DIAGNOSIS: History of peripheral arterial disease with new right foot gangrene and left 3rd toe ulceration.

ANESTHESIA: Local sedation with ankle block for the foot debridement.

INDICATIONS: The patient has a long history of peripheral arterial disease and status post bilateral lower extremity peripheral vascular interventions for critical limb ischemia in the past. He presented with new gangrene on his right lateral foot across the 5th metatarsal area as well as a pressure ulceration at the left 1st metatarsal plantar space and ulceration of one of the remaining toes, being the left 3rd toe. Duplex studies indicate recurrent disease in his right popliteal and tibioperoneal trunk. He presents today for diagnostic and possible interventional arteriogram, understanding the risks and benefits. If the angiogram is successful to vascularization the plan is then to do bilateral foot procedures.

NARRATIVE: After identifying the patient, he was brought to the OR and placed supine on the table. WHO checklist was performed. He received sedation by anesthesia. Both groins were prepped and draped in a sterile fashion with ChloraPrep. He had previously been receiving antibiotics from the floor for his foot infection. Prophylactic intravenous sodium bicarbonate was given because of a GFR of 35.

The left common femoral artery was accessed by ultrasound by a micropuncture technique, saving an image of the patent vessel for the record. This was upsized to a 4-French sheath. A Contra catheter was placed into the abdominal aorta and a CO2 abdominal aortogram was performed. The Contra catheter was then pulled down to the iliac bifurcation and bilateral CO2 angiography was performed.

Using the Cobra catheter, the right external iliac artery was selectively catheterized. CO2 arteriography was performed from the femoral bifurcation down to the level of the proximal calf. Next, the right SFA was selectively catheterized with the Glide Advantage wire. A 45 cm 6-French Destination sheath was positioned in the right SFA. The patient was heparinized. Additional diagnostic imaging was obtained below the knee with contrast. I then proceeded with intervention.

The patient was heparinized and ACT was found to be therapeutic. The popliteal stenosis and tibioperoneal trunk occlusion were crossed with a combination of 0.014 wires supported by the Quick-
Cross catheter. A popliteal stenosis at the knee was angioplastied to 6 x 40 mm. A post angioplasty arteriogram in 2 views showed minimal residual stenosis with a minor non flow-limiting dissection, which was acceptable. Next, the tibioperoneal trunk lesion was angioplastied to 3 x 100 mm. A post angioplasty arteriogram showed good luminal gain but no significant residual stenosis or dissection and intact runoff. We attempted to engage the right anterior tibial artery occlusion. The wire and catheter combination would enter the mid vessel, but not beyond. Further attempts at revascularizing this long AT occlusion were abandoned. Next, diagnostic images were taken of the left leg as described above.

The patient was given protamine reversal. A 6-French short sheath was placed on the left side.

Both feet were then prepped and draped. The right foot was debrided including skin, subcutaneous tissue and bone. The gangrenous tissue was removed. Tissue and a segment of metatarsal bone from the 5th digit were sent for culture.

The left 3rd toe was amputated at its base and the wound closed with nylon suture. Sterile dressings were placed. The left femoral sheath was then pulled with hemostasis achieved by manual compression and a hemostatic patch. The patient was sent to recovery in good condition. Sponge and needle counts correct.

ESTIMATED BLOOD LOSS: Minimal. Contrast 147mL. fluoro time 39 min DAP 125948