PREOPERATIVE DIAGNOSES:,1. Left superficial femoral artery subtotal stenosis.,2. Arterial insufficiency, left lower extremity.,POSTOPERATIVE DIAGNOSES:,1. Left superficial femoral artery subtotal stenosis.,2. Arterial insufficiency, left lower extremity.,OPERATIONS PERFORMED:,1. Left lower extremity angiogram.,2. Left superficial femoral artery laser atherectomy.,3. Left superficial femoral artery percutaneous transluminal balloon angioplasty. ,4. Left external iliac artery angioplasty.,5. Left external iliac artery stent placement.,6. Completion angiogram.,FINDINGS: ,This patient was brought to the OR with a non-severe stenosis of the proximal left superficial femoral artery in the upper one-third of his thigh. He is also known to have severe calcific disease involving the entire left external iliac system as well as the common femoral and deep femoral arteries.,Our initial plan today was to perform an atherectomy with angioplasty and stenting of the left superficial femoral artery as necessary. However, whenever we started the procedure, it became clear that there was a severe stenosis of the left superficial femoral artery at its takeoff from the left common femoral artery. The area was severely calcified including the external iliac artery extending up underneath the left inguinal ligament. Indeed, this ultimately was dissected due to manipulation of sheath catheters and sheath through the area. Ultimately, this wound up being a much more complex case than initially anticipated.,Because of the above, we ultimately performed a laser atherectomy of the left superficial femoral artery, which then had to be angioplastied to obtain a satisfactory result.

The completion angiogram showed that there was a dissection of the left external iliac artery, which precluded flow down into the left lower extremity. We then had to come up and perform angioplasty and stenting of the left external iliac artery as well as aggressively dilating the takeoff of the less superficial femoral artery from the common femoral artery.,The left superficial femoral artery was dilated with a 6-mm balloon.,The left external iliac artery and common femoral arteries were dilated with an 8-mm balloon.,A 2.5-mm ClearPath laser probe was used to initially arthrectomize and debulk the superficial femoral artery starting at its takeoff from the common femoral artery and extending down to the tight stenotic area in the upper one-third of the thigh. After the laser atherectomy was performed, the area still did not look good and so an angioplasty was then done, which looked good; however, as noted above, after we had dealt with the superficial femoral artery, we then had proximal inflow problems, which had to be dealt by angioplasty and stenting.,The patient had good dorsalis pedis pulses bilaterally upon completion.,The right common femoral artery was used for access in an up-and-over technique.,PROCEDURE: , With the patient in the supine position under general anesthesia, the abdomen and lower extremities were prepped and draped in the sterile fashion.,The right common femoral artery was punctured percutaneously, and a #5-French sheath was initially placed. We used a pigtail catheter to go up and over the aortic bifurcation and placed a stiff Amplatz guidewire down into the

left common femoral artery. We then heparinized the patient and placed a #7-French Raby sheath over the Amplatz wire. A selective left lower extremity angiogram was then done with the above-noted findings.,We then used a ClearPath 2.5-mm laser probe to laser the proximal superficial femoral artery. Because of the findings as noted above, this became more involved than initially hoped for. Once the laser atherectomy had been completed, the vessel still did not look good, so we used a 6-mm balloon to thoroughly dilate the area. Once that had been done, it looked good and we performed what we felt would be a completion angiogram only to find out that we had a more proximal problem precluding flow down into the left femoral artery.,Once that was discovered, we then had to proceed with angioplasty and stenting of the left external iliac artery right down to the acetabular level.,Once we had dealt with our run-on problems, we then did another completion angiogram, which showed a good flow through the entire area and down into the left lower extremity.,Following completion of the above, all wires, sheaths, and catheters were removed from the right common femoral artery. Firm pressure was held over the puncture site for 20 minutes followed by application of a sterile Coverlet dressing and a firm pressure dressing.,The patient tolerated the procedure well throughout. He had good palpable dorsalis pedis pulses bilaterally on completion. He was taken to the recovery room in satisfactory condition. Protamine was given to partially reverse the heparin.