

Interventional Radiology Coding Case Studies

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Week of April 23, 2018

Angioplasty & Stent of Popliteal/Stent Graft, Thrombolysis

INDICATION: An 80 year old male with history of right popliteal aneurysm, status post stent grafting initially in September of 2014. Since that time the stent graft has clotted off twice, most recently in September of 2016, for which the patient was treated at an outside institution. He now presents with a painful right foot and dusky discoloration to several toes.

PROCEDURE STEPS:

1. Seldinger access of the left common femoral artery.
2. Selective catheterization of the right common iliac artery with arteriogram.
3. Selective catheterization of the right common femoral artery with lower extremity runoff arteriogram.
4. Ultrasound-guided antegrade Seldinger access of the right common femoral artery.
5. Percutaneous transluminal angioplasty with stenting of the right popliteal artery and stent graft.
6. Followup arteriogram.
7. Overnight right lower extremity catheter infusion of TPA.
8. Followup post thrombolysis right lower extremity arteriogram.

ANESTHESIA: Conscious sedation using Versed and fentanyl (see report); local anesthesia using buffered 1% lidocaine.

TOTAL CONTRAST: 128 mL of Visipaque 320.

TOTAL FLUOROSCOPIC TIME: 14.7 minutes.

TECHNIQUE: After informed consent was obtained, the patient was placed supine on the angiography table. Both groin sites were sterilely prepped and draped. The left groin was locally anesthetized with buffered 1% lidocaine. A small skin nick was then made.

Using Seldinger access technique, the left common femoral artery was percutaneously accessed, followed by placement of a 5-French sheath. Over this, a 5-French SOS Omni catheter was passed into the distal abdominal aorta, was formed and used to select the origin of the right common iliac artery. Through the catheter a right digital pelvic arteriogram was obtained. The catheter was then advanced over a guidewire to the level of the right common femoral artery, followed by power injection of contrast for digital right lower extremity runoff arteriogram.

Over the wire, the catheter and sheath were removed, followed by placement of a 7-French Raabe sheath. This was passed over the aortic bifurcation and positioned at the level of the right superficial femoral artery. A 0.035-inch guidewire was then passed distally across the right popliteal artery. A 12 mm balloon catheter was passed and positioned across the mid popliteal stent graft for balloon angioplasty. The balloon catheter was then removed and a follow-up arteriogram was obtained showing only minimal improvement.

The right groin site was then locally anesthetized with buffered 1% lidocaine. Using Seldinger technique, antegrade percutaneous access of the right common femoral artery was performed, followed by placement of a 7-French sheath. A guidewire was then directed distally across the right popliteal artery. Over this a 14 x 60 mm Smart Stent was passed and deployed. The deployment mechanism was then removed and subsequent right lower extremity arteriogram was obtained showing marked interval improvement in the appearance of the popliteal stent graft. However, interval clot migration is noted into the proximal peroneal artery. Via the right groin sheath, the patient was then dripped overnight with a TPA solution.

He was brought back the following morning for subsequent right lower extremity runoff arteriogram performed via the right groin sheath. This showed interval clearing of clot from the peroneal artery with no significant residual clot identified. Findings were then discussed with Dr. X by phone. The right groin sheath was then exchanged for a short 6-French sheath, through which an Angio-Seal hemostasis device was applied. Once hemostasis was obtained, a sterile bandage was then placed. The patient was then returned to the floor, where the left groin sheath will be removed and pressure held until hemostasis is obtained. He otherwise tolerated the procedure well with no immediate complications.

FINDINGS: There is no significant inflow disease of the right lower extremity. Superficial femoral artery is minimally diseased and widely patent throughout. A patent stent graft is demonstrated, positioned across the entire popliteal artery, crossing the knee joint. At the level of the intercondylar fossa, there is an eccentric filling defect seen within the stent graft resulting in, at most, approximately 50% luminal stenosis.

There is no evidence of leaking from the endograft. However, the graft does appear to be more tortuous than on previous study. There is essentially 2-vessel runoff to the right foot via the peroneal artery, which is patent to the ankle. The anterior tibial artery shows marked proximal disease, but appears to be patent distally. Following coaxial stenting of the mid stent graft, the graft is noted to be less tortuous. Initial followup imaging shows interval improved appearance of the contrast column throughout the stent graft; however, there is a focal filling defect seen in the proximal-most peroneal artery.

The followup thrombolysis imaging shows brisk flow throughout the right lower extremity and popliteal stent graft. There has been interval clearing of clot from the peroneal artery, which is now widely patent to the ankle. The anterior tibial artery shows marked focal disease at a level approximately at the junction of the proximal and middle thirds. This vessel is otherwise widely patent distally with flow into the dorsalis pedis.

CONCLUSIONS:

1. Patent popliteal stent graft, though with an eccentric mid-graft stenosis at a point of increased tortuosity, more prominent than on previous study. Status post percutaneous transluminal angioplasty with re-stenting of the popliteal stent graft, giving it a much improved appearance with brisk flow throughout and no residual filling defects. Additionally, the degree of tortuosity is improved.
2. Initial post-angioplasty, incomplete occlusion of the proximal peroneal artery due to clot. Following overnight tPA, there is interval clearing of clot from the peroneal artery, which is widely patent to the ankle.
3. Marked focal disease of the proximal anterior tibial artery as described, which is otherwise widely patent distally to the foot.

Interventional Radiology Coding Case Studies CPT Codes

Week of April 23, 2018

Angioplasty & Stent of Popliteal & Stent Graft, Thrombolysis

Procedure Codes:

- 37226 Angioplasty/Stent of Popliteal/Stent Graft
- 75710(59)(RT) Right lower extremity imaging
- 37211 Thrombolysis of peroneal artery (Day 1, start)
- 37214 Thrombolysis check/cessation peroneal artery (Day 2, stop)
- Q9967 x128 LOCM 300-399 MG/ML
- J2250 Injection, midazolam hydrochloride, per 1 mg (Versed)
- J3010 Injection, fentanyl citrate, 0.1 mg

Diagnosis Codes:

- T82.858A Stenosis of popliteal stent graft
- T82.818A Thrombosis peroneal artery

Comments:

- Code 37226 is assigned for both the angioplasty and the stenting performed of the popliteal and stent graft. Although the report notes that the patient had an aneurysm treated with stent graft placement, the immediate indication treated in this procedure was stenosis (occlusive disease), followed by thrombosis, therefore it would be incorrect to assign code 37236 for PTA/stent which is assigned when the indication is non-occlusive disease.
- Catheterizations from both points of access are bundled into code 37226, since an intervention was performed through each access. Although catheterization is not bundled into the initial thrombolysis procedure, since it is bundled with 37226 during the same session, it is not reported.
- Code 37211 is assigned for initiation of thrombolysis to dissolve the peroneal clot.

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Comments (continued):

- Code 37214 is assigned the next day, when the patient returns for a thrombolysis check and the procedure is terminated. Follow up angiograms to check the progress of the thrombolysis procedure are bundled with code 37214 and are not coded separately.
- Required documentation for moderate sedation is missing in addition to total time.
- Required documentation missing for ultrasound guidance for vascular access.
- Drug amounts were not specified in the report to assign a quantity.
- *Supplies are billed by the facility performing the procedure and should not be assigned for professional fee coding.*

Applicable Coding Rules:

Lower Extremity Revascularization

- As a general rule, accessing the vessel, selective catheterization of the vessel and crossing of the lesion is bundled into the lower extremity revascularization codes. All catheter placements related to performance of the therapeutic intervention, including catheter placements for any diagnostic angiography associated with the therapeutic intervention should not be coded separately. (Note: There are some exceptions)
- An initial diagnostic angiogram may be reported when performed. If a prior diagnostic angiogram has been performed, diagnostic angiography should only be reported separately in accordance with guidelines established for reporting with transcatheter procedures.
- An initial diagnostic angiogram may be reported when performed. If a prior diagnostic angiogram has been performed, diagnostic angiography should only be reported separately in accordance with guidelines established for reporting with transcatheter procedures. Diagnostic angiography/venography performed during the same session as a therapeutic intervention may be reported separately when:



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Applicable Coding Rules (continued):

- ❖ No prior catheter-based diagnostic angiography/venography study has been performed or if a prior study was performed but it is not available.
 - ❖ The prior diagnostic study is inadequate.
 - ❖ There has been a change in the patient's condition since the diagnostic study.
 - ❖ There is a clinical change during the procedure that requires further evaluation beyond the target area of the intervention.
 - ❖ Diagnostic angiography/venography performed at a separate setting from an interventional therapeutic procedure is separately reported.
- **Femoral/Popliteal Territory.** The femoral/popliteal territory is made up of the common femoral, superficial femoral, deep femoral arteries and the popliteal artery.
- ❖ The entire territory has been designated as one vessel for coding purposes, therefore only one code will be reported for multiple interventions for multiple vessels within this territory. There are no add-on codes for this territory.

Thrombolysis

Catheterization Codes

- When performing thrombolysis the catheter must be manipulated through the arterial or venous system to perform the procedure. Catheterization codes should be assigned in accordance with the rules for reporting non-selective and selective catheterization unless otherwise bundled into the code for the thrombolysis (ie, intracranial thrombolysis) or another intervention performed during the same session (ie, lower extremity revascularization).

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Applicable Coding Rules (continued):

Diagnostic Angiography

- An initial diagnostic angiogram may be reported when performed. If a prior diagnostic angiogram has been performed, diagnostic angiography should only be reported separately in accordance with guidelines established for reporting with transcatheter procedures. Note that diagnostic angiography is included with intracranial thrombolysis, code 61645.

Thrombolysis (37211-37214)

- Codes 37211 (arterial) and 37212 (venous) are assigned for the initial day of treatment.
- Modifier -50 is utilized to report bilateral thrombolysis.
- Code 37213 describes the continuation of an arterial or venous thrombolysis on a subsequent day.
- Code 37214 describes the final day of an arterial or venous thrombolysis procedure.
- When initiation and cessation occur on the same day of service, assign only the code for the initiation 37211 (arterial) or 37212 (venous).
- The following work is included with codes 37211-37214:
 - ❖ Follow-up arteriography/venography
 - ❖ Catheter position change and/or exchange

RS&I Codes

- **Bundled Components.** All RS&I work is bundled into the surgical code for the thrombolysis procedure. This work includes the following services: contrast injections, angiography/venography, roadmapping, and fluoroscopic guidance for the intervention, vessel measurement, completion angiography/venography and follow-up angiography.

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