



PHYSICIAN
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ACCESS SITES

- Common femoral artery.

DIAGNOSTIC DEVICES USED

SHEATH SIZES

6 F in most cases; 7 F occasionally; 5 F anticipated in the near future.

FLUSH DIAGNOSTIC CATHETERS

5-F pigtail, although 4-F could be used during the diagnostic phase of the procedure.

DIAGNOSTIC GUIDEWIRES

.035-inch Bentson during initial access and diagnostic

angiogram; a better-support guidewire (eg, Storz, Wholey) is often needed for advancement of interventional sheath and stent placement.

DIAGNOSTIC NOTES

In 75% of cases, the contralateral oblique (right for left iliac, left for right iliac) will be the best angle of visualization to display common iliac artery bifurcation and the external iliac—missing an iliac artery lesion is a common pitfall that is almost always related to failure to visualize in more than one plane.

INTERVENTIONAL DEVICES USED

INTERVENTIONAL GUIDEWIRES

A .035-inch Wholey or Storz (or similar) will work well in most cases.

INTERVENTIONAL SHEATHS

6-F, radiopaque-tipped sheath.

PTA BALLOONS

.035-inch-compatible PTA catheters work quite well, although some may prefer .018-inch-based devices.

STENTS

A number of interventionists continue to adhere to the principle that balloon-expandable stents are best for the iliac arteries; however, many of us have now switched to the more user-friendly, nitinol-based, self-expanding devices for the majority of patients. The future lies with rapid-exchange devices.

OTHER DEVICES

Fabric-covered stents may be considered in some instances.

INTERVENTIONAL NOTES

The crossover approach can be arguably considered an “ideal” technique for iliac artery intervention, except for origin or very proximal lesions in the common iliac artery.

Aortic bifurcation disease often “spills” into the bilateral common iliac arteries. The traditional technique for interventional treatment has been the kissing-stent technique. However, this procedure has not been mastered by the majority of interventional physicians, and it is often compromised by imperfect or imprecise stent placement. We have (for many years) recognized such shortcomings of the kissing-stent technique and have adopted

instead the “hugging-stent technique,” whereby 40-mm-long devices are placed (simultaneously) halfway between the distal aorta and common iliac arteries. Our experience is large and long enough to tell us this is an approach that has much to offer.

IMAGING NOTES

As always, optimal visualization is paramount, which can be a problem with certain stent devices, especially those without radiopaque markers and when intervening on obese patients.

OTHER EQUIPMENT USED

As is the same with many other interventional procedures, a full spectrum of devices, skills, and techniques is paramount at the time of bringing a given procedure to its successful completion. Iliac artery intervention, although relatively “simple” in the majority of instances, can require (at times) more refined and advanced maneuvers or techniques that might lead to the need for snaring, selective catheterization, and the like. It never hurts to have the full spectrum of interventional capabilities at one's disposal.

CONTRAST RECOMMENDATIONS

Gadolinium.

PHARMACEUTICALS

Heparin, clopidogrel before and after.

TESTS USED

Doppler-derived segmental pressures as well as waveforms and direct duplex imaging of treated aorta and iliac arteries constitute the most important tools to document success, and for patient follow-up over time. ■