



PHYSICIAN
Mark Wholey, MD

ACCESS SITES

- The left vertebral is approached quite easily from the femoral access site, whereas the right vertebral is frequently easier to manage from a percutaneous brachial approach.

DIAGNOSTIC DEVICES USED

SHEATH SIZES

6 F.

FLUSH DIAGNOSTIC CATHETERS

Vertebral or H-1.

SELECTIVE DIAGNOSTIC CATHETERS

H-1 or vertebral catheter.

DIAGNOSTIC GUIDEWIRES

Wholey High Torque floppy (neuro) or .014-inch BMW or Choice PT .014-inch.

INTERVENTIONAL DEVICES USED

INTERVENTIONAL GUIDEWIRES

If the vertebral is 4 mm or smaller, we will use a .035-inch wire for positioning. We would position a 6-F guide at the ostium.

INTERVENTIONAL SHEATHS OR GUIDE CATHETERS

H-1.

PTA BALLOONS

Ordinarily, we use a low-profile, 3-mm to 4-mm monorail balloon. Occasionally we will use a 5-mm balloon.

STENTS

Dependent on the vertebral size; most often the balloon-expandable, coated paclitaxel-eluting Taxus stent or sirolimus-eluting Cypher stent. In the event that the vertebral is 5 mm or greater, we would use a Genesis or Express 5-mm stent.

INTERVENTIONAL NOTES

- The left vertebral is approached quite easily from the femoral access site, whereas the right vertebral is frequently easier to manage from a percutaneous brachial approach. We position a 6-F sheath in close proximity to the right brachial and subsequently catheterize the vessel with a .014-inch system and proceed with angioplasty and stenting with low-profile coronary technology.
- In the event the target lesion is a high vertebral, we would also approach it in a similar fashion by taking the .014-inch wire to the base of the skull, subsequently proceeding with endovascular stenting at that level with a low-profile coronary stent (either the Taxus or Cypher) with appropriate drug elution.
- Balloon-expandable stents are satisfactory for the vertebral circulation considering that the vertebral arteries are protected by the intervertebral foramina.
- Restenosis is an unusual event, especially with carotid endovascular stenting procedures, and in the event restenosis does recur, we simply redilate the lesion, with successful results on this secondary assisted patency.
- We have occasionally used a cutting balloon but ordinarily, we use balloon angioplasty. We rarely position an additional stent for in-stent restenosis in the carotid circulation.

CONTRAST RECOMMENDATIONS

Low osmolar or iso-osmolar contrast medium.

PHARMACEUTICALS

The anticoagulant used in most of our carotid and vertebral procedures is bivalirudin, with the standard dosage regimen. ■