Hello and welcome to the May 2020 edition of *Vascular Disease Management*. I have chosen to comment on Drs. Cereda, Sangiorgi, and colleagues’ article, “Treatment of Common Femoral Artery Lesions Involving the Superficial and Profunda Femoral Artery Bifurcation: Is the Snow Too Melted to Plow With New Endovascular Devices?”

There are two reasons I chose to comment on this article. The first is that the authors discuss the interventional treatment of a common femoral artery (CFA) obstruction involving the profunda femoris and superficial femoral artery, historically considered a “no-intervention zone” where common femoral endarterectomy has been held as the gold standard of treatment. The authors cite reported known complication rates associated with CFA endarterectomy and highlight some of the newer interventional therapies that allowed successful treatment with favorable outcomes. The second reason I chose to comment on this article is that CFA endarterectomy has often been cited, with no room for debate, as the only appropriate therapy and as the treatment of choice in all CFA lesions.

Surgical therapy of CFA lesions involving the SFA and profunda has been an excellent vascular surgical procedure that can be performed under local anesthesia, if necessary, and has been associated with excellent patency and limb salvage. Reported complication rates by Nguyen and colleagues’ of 3.4% perioperative mortality, and a 15% combined risk of morbidity and mortality, demonstrate that CFA endarterectomy is not a totally benign procedure and patients with peripheral vascular disease have a poor overall prognosis. The risk of wound complications leading to substantial scarring is significant. Reports are emerging about successful interventional treatment of CFA lesions with low complication rates and excellent patency and clinical outcomes.

Most interventionists are comfortable with performing interventions on the CFA when the lesion is confined to the CFA, and there is at least 1-2 cm of normal vessel prior to the origins of the SFA and profunda femoris vessels. Interventional therapy of lesions involving the CFA and its bifurcating vessels has historically been eschewed secondary to the risk of major embolization, plaque shift, suboptimal patency, and the risk of obstructing one of the bifurcating vessels, particularly if stenting is required.

Will newer interventional techniques such as lithoplasty, atherectomy, and drug-coated balloons coupled with distal protection prove to be viable alternatives to CFA endarterectomy, which has demonstrated excellent short- and long-term patency, low complication rates, and minimal limitation of future access for limb salvage interventions or surgery? Do we need to stratify CFA lesions not just by anatomy but by gender, ethnicity, vessel size, degree of calcification, patient age, disease presentation symptoms, other concomitant peripheral vascular lesions, associated cardiovascular disease involving multiple other vascular beds, the presence of obesity or diabetes, and patient frailty and life expectancy, before deciding on course of therapy? Are restenotic lesions and iatrogenic lesions resulting from usage of vascular closure tools different from de novo CFA lesions? Does long-term patency outweigh the risk of short-term complications, particularly if an interventional procedure can easily be repeated if necessary? These are questions that must be answered if we are to delineate optimal therapy in patients presenting with CFA obstructive disease.

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Standard balloon angioplasty has been associated with suboptimal short and long-term patency rates. Stenting has shown reasonable patency, but is associated with risk of stent fracture and of obstruction of side vessels when placed across the bifurcation. Stenting may also interfere with future access and future required surgical bypass or interventional procedures.

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I strongly suspect that CFA endarterectomy is not always the appropriate therapy for all patients presenting with obstructive common femoral artery disease, but it should remain the gold standard until other therapies demonstrate equipoise or superiority either overall or in certain patient subsets. I also suspect that surgical and interventional results will vary based on the technical expertise of treating physicians, making the determination of optimal treatment more difficult.

New developments in interventional technologies and techniques have changed the way peripheral vascular disease is presently treated. Initially, surgery was considered the preferable treatment in all peripheral vascular beds. The initial interventional treatment to gain widespread approval as having equipoise with surgery in patency, with less major complications and morbidity, was iliac artery stenting. Treatment of superficial femoral and popliteal arterial disease was likewise initially thought to be an area where interventional therapy was contraindicated. Secondary to technological advances and improved techniques, most SFA and popliteal lesions are now treated via interventional techniques that are associated with low morbidity, good patency, and can easily be repeated in patients who often have progressive disease. Infrapopliteal intervention was considered initially to be contraindicated and dangerous, but it has gained progressive popularity, because of decreased morbidity and excellent reported rates of limb salvage in patients who typically have a very poor long-term prognosis. Disease involving the plantar and dorsal arch vessels below the ankle is now commonly treated via interventional technique. Breakthroughs in technique including alternate access, better wires and crossing tools, distal protection, specialty balloons, drug-coated balloons, drug-eluting stents, fracture and compression-resistant stents, atherectomy, and lithoplasty are expanding the role of intervention. Many new tools are in developmental stages that may ultimately result in better treatment options.

The treatment of CFA lesions and peripheral vascular disease in general is evolving and will continue to evolve with technological breakthroughs and better understanding of new techniques. Patients and treating physicians must weigh the advantages and disadvantages of each new therapy, and must weigh each in different patient groups and clinical presentations in order to determine what is the “gold standard” at this time. We must continue to assess what will be the future “gold standard”, as this will certainly change over time. This is a field that is rapidly evolving and will continue to change. Change is not always good, but improvement in outcomes will only occur with change. We must remain open minded and scientific in our observations and assessment of new techniques and technologies if we are ultimately to improve outcomes. ■

REFERENCE