

SFA Disease: The Unconquered Ordeal

I have always viewed carotid artery stenosis as God's gift to interventionists because it possesses almost all the characteristics that predict a successful endovascular procedure. These characteristics include the fact that almost all carotid lesions that require treatment are short, focal stenoses as opposed to long, diffuse occlusions, in a high flow system with low outflow resistance, and a relatively large target vessel size. Superficial femoral artery (SFA) disease, however, is truly an ordeal for interventionists because it possesses none of these characteristics and, in addition, is subjected to repetitive mechanical stress from joint flexion.

This harsh environment has allowed surgical bypass to be in the driver's seat for longer than it has in any other vascular bed and has also been responsible for the tremendous controversy that surrounds various endovascular tools. There is no other vascular bed in which so many different endovascular approaches and tools are available, with each one of them claiming to be superior in the absence of solid data. Where else in the body does one have to

choose from medical management, bypass surgery, regular and subintimal PTA, bare-metal stents, covered stents, atherectomy, cryoplasty, remote endarterectomy, and laser angioplasty, in addition to the various re-entry tools?

Despite challenges, SFA disease continues to be an attractive disease state for both physicians and industry. From a physician standpoint, there is nothing that is as rewarding as treating a symptomatic condition. Each patient that undergoes therapy for peripheral arterial disease (PAD) has severe symptoms, including disabling claudication or critical limb ischemia. Successful treatment leads to instant relief of such severe disability, which is very gratifying. This is usually not the case with carotid, renal, and aneurysm therapy, in which the treatment is often for asymptomatic conditions or those prophylactic in nature. From an industry standpoint, SFA disease constitutes a huge market that is largely untapped. For example, a recent study by Patrice Anderson, MD, used the National Hospital Discharge Survey to analyze the trend in the number of vascular procedures performed in the US during the last 2 decades, and showed that the number of vascular procedures, including endovascular therapy, nearly doubled from 412,000 cases in

1980 to 801,000 cases in 2000. The biggest winner was catheter-based therapy, which showed an impressive 1,000% increase during this period, and the only procedure that was performed with less frequency was bypass surgery for PAD. Currently, 14% of US citizens are older than 65 years, and as members of the Baby Boomer generation reach this age during the years 2011 to 2030, this percentage will reach 20%. Because advanced age is the strongest risk factor for PAD, it is estimated that 2.17 million vascular procedures will be performed in 2030, and much of this

increase will be due to increased utilization of endovascular procedures for PAD. Also, PAD is still underrecognized, and with increased awareness, this market is expected to grow even larger.

This issue of *Endovascular Today* features the exciting field of SFA disease. Frank J. Arena, MD, provides insights about the consequences of nitinol stenting SFA and popliteal artery. Mark G. Davies, MD, PhD, and colleagues detail their recent findings with both open and endoluminal SFA therapies in the global management of occlusive SFA disease.

Roger Gammon, MD, presents the intermediate-term results of the ongoing TALON Registry. Bob Smouse, MD, and colleagues discuss what happens during extremity movement and the resultant effect on stenting in the SFA. Bret N. Wiechmann, MD, and colleagues present single-center experience that suggests cryoplasty is an effective first-line therapy and reduces target lesion revascularization. John D. Martin, MD, explores the possibility of remote endarterectomy being a hybrid alternative to bypass surgery in treating the SFA. We also present an interview with Steve Phurroughs, CMS Director of Coverage and Analysis, in which he explains the implications of the recent CMS Decision Memorandum regarding CAS, a timely and hot topic about which every interventionist needs to be aware.

I hope that you enjoy this issue of *Endovascular Today* and that the magazine continues to be useful to you and your practice. ■



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