The Potential for Interventional Radiologists of Peripheral Arterial Disease

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ABSTRACT

It is unfortunate that in the peripheral arena surgeons often get the first referral for patients with peripheral arterial disease. Interventionalists should present themselves as vascular specialists to the referring community. Peripheral vascular disease in the future will be primarily an interventional specialty. Endovascular interventions are safe for people with claudication and interventionalists should offer them. If interventionalists provide comprehensive care and thoughtfully enter a market with the will to compete, it is very likely that they will succeed.

KEYWORDS: PAD, minimally invasive therapy, vascular specialist, interventionalist

Objectives: Upon completion of this article, the reader will (1) gain an understanding of the underlying flaw in current referral patterns for peripheral vascular disease (PVD) and (2) appreciate patient and societal benefits of direct clinical referral from primary care physicians to interventionalists for management of PVD.

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Historically, vascular surgeons have presented themselves as the only vascular disease specialty. More recently, interventional radiologists and vascular interventionalists have also done so. However, most referring doctors and practitioners, when presented with a patient with a vascular problem, have a knee-jerk reaction to refer the patients to vascular surgeons. The vascular surgeons, who have tremendous brand-name recognition in this area, then triage patients for management, often deciding whether a patient should be referred to an interventionalist or not. This is perverse, in that the more invasive specialty is triaging or making the determination as to whether patients should be sent to a less

invasive therapist. A more natural referral paradigm would be for patients to be managed in the community with primary care doctors, referred to less invasive interventionalists, with the less invasive interventionalists assessing patients with a biased eye toward interventional therapy, which has lower risk than surgery. If the interventionalist determines that the patient isn't suitable for interventional therapy, they may then refer the patient to the more invasive surgical specialist. This is the very reasonable practice model that exists for coronary artery disease. Surgeons are often biased toward surgical interventions. It is unfortunate that in the peripheral arena surgeons often get the first referral for

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patients with peripheral arterial disease. Many patients who would be suitably treated by interventional therapy often undergo surgery, which is riskier and more expensive.

Interventionalists should present themselves as vascular specialists to the referring community. They should try to get referrers, including nurse practitioners and office staff, to think in terms of vascular specialists rather than vascular surgeons when considering patients with vascular disease. In fact, interventional radiologists present a very compelling option with intuitive appeal to primary care doctors and other practitioners. Namely, they are regarded as high-tech specialists providing cutting-edge, minimally invasive therapies and as experts in vascular disease. Those who provide clinical service usually are readily accepted by the primary care community. Indeed, vascular surgeons have begun to promote themselves as "vascular and endovascular surgeons." Many vascular surgeons recognize that the word "surgery" is not received favorably by patients and the primary care community. In fact, the name "surgery" may become a liability in obtaining referrals, despite the word "endovascular" preceding it. Internists often are trained to manage people medically as long as possible, in that a referral to surgery may represent somewhat a failure of medical management. They justifiably wish to avoid open, major procedures for their patients. Similarly patients have a very intuitive resistance to open surgery. Simply put, there is a natural human aversion to being cut open. This is the underlying reason for the appeal of the interventionalist to the public and to the referring community.

Additionally, many in the general practice of internal medicine have suspicion about the forays of interventional cardiologists into peripheral arterial disease. They recognize that cardiologists possess tremendous knowledge regarding the pericardium and its contents. However, they also recognize that few interventional cardiologists presenting themselves as peripheral arterial disease experts currently have undergone accredited training. In fact, much of the training is below grade, conducted over a short period of time by trainers who themselves have not undergone accredited training. Cardiologists may not keep up with the peripheral arterial disease literature, and many haven't read the vascular disease textbooks. Some presume that their coronary knowledge will carry them through the peripheral arterial tree. They are wrong, and this attitude will usually make them easy competition for interventionalists who carefully set up clinical practice and want to promote themselves in peripheral arterial disease. The referring community very simply recognizes that interventionalists are the endovascular experts for peripheral arterial disease and would gladly send them their patients if they are available in the community.¹ The referring community is aware that interventional cardiologists

often present themselves as possessing "limited competency" for peripheral arterial interventions. This is a dubious qualification at best. The term "limited competency" is oxymoronic and should be viewed as synonymous with "no competency." One is either competent to treat patients with peripheral arterial disease or not competent to treat peripheral arterial disease; any middle ground is illusory.

For interventionalists promoting themselves in a community where vascular surgeons compete with them to perform surgical procedures or endovascular procedures, special attention needs to be given to the practice patterns that are in place. In particular, adoption of the term "vascular specialist" in the region is highly desirable. For too long, interventionalists have let vascular surgeons define their services to the referring community. This is unfortunate as there has been a tacit conspiracy among vascular surgeons to smear interventional radiology procedures since the inception of interventional radiology in the 1960s. Indeed, it has been recognized that the moniker "crazy Charlie," applied to Dr. Charles Dotter, was a pejorative designed by vascular surgeons to undermine his credibility.¹ It is ironic to note the scramble presently being undertaken in vascular surgery to obtain "endovascular" experience. If one examines the literature, randomized trials for treatments of peripheral arterial disease in the lower extremities, renal arteries, and carotid circulations have all demonstrated that interventional techniques are preferred over surgical techniques.²⁻⁵

Vascular surgeons see the future very clearly. Peripheral vascular disease in the future will be primarily an interventional specialty. Patients will be triaged for interventional revascularization when necessary, and only those who fail or cannot undergo interventional treatment will be sent for surgery. The field of vascular surgery would like to reinvent itself as enhanced interventional radiology,¹ and the proposed changes to the training requirements resemble very closely those of interventional radiology. However, there are too few vascular surgeons in the United States and too few trainees for this wholesale reinvention to be possible. Vascular surgeons will continue to be vulnerable to interventional radiologists in markets where interventionalists present themselves as clinical practitioners. The interventionalists must eliminate their perceived dependence on referrals from vascular surgeons. This perception is shortsighted. Vascular surgeons will eventually hire an endovascular interventionalist or get training, and their referrals will stop regardless of collegial relationships that may have existed before they were "trained."

Rather, it is preferable for interventional radiologists to abolish the old practice model, which only serves to support or subsidize the vascular surgeon's practice. This can be easily accomplished by insisting

on preprocedural consultation for all patients requiring intervention, including those from vascular surgeons. In many instances this will amount to cutting off the supply of services to the vascular surgeon. The interventionalists need to ensure direct recognition from the referring physicians for the cognitive as well as technical services they perform. They should no longer allow the vascular surgeons to present them as an extension of their own care. By ceasing to perform interventions at the instruction of vascular surgeons and instead performing consultations on patients referred from vascular surgeons, the interventionalist will perform only procedures that they determine are suitable, and they will communicate directly with the vascular surgeon and the primary care doctor about the treatment plan and the treatment outcomes. Often, surgeons will react negatively to this and will threaten to take their referrals elsewhere. They should be encouraged as it is really only a matter of time before they stop referring anyway.

The surgeons in all likelihood presently perform bypass surgery for many patients who should have attempts at endovascular intervention first. This means they probably are not referring as many patients for interventional therapy even from their own practices that warrant endovascular management. Therefore the pipeline of patients from the surgeons is probably underrepresentative of the true population who would benefit from minimally invasive treatment of peripheral arterial disease. Finally, surgeons have traditionally not presented themselves as being aggressive for patients with important disease conditions such as intermittent claudication. Endovascular interventions are safe for people with claudication and interventionalists should offer them.⁶ It is likely that interventional radiologists in a region dependent on surgery would perform many more peripheral arterial interventions if they dissolved their traditional referral patterns with the surgeons and rather established referral patterns from primary care doctors, especially for claudication.

Vascular surgeons and cardiologists often claim that they "control the patient." This is also erroneous because no one controls patients. According to the AMA Code of Ethics, patient autonomy needs to be respected.⁷ Patients can make their own decisions. Additionally, referral patterns can change very quickly. There is no contract or other financial benefit that is derived by referring doctors to send patients to any particular doctor. This would be illegal. If interventionalists provide comprehensive care and thoughtfully enter a market with the will to compete, it is very likely that they will succeed.

Another specious argument that is often heard is that cardiologists or vascular surgeons are more likely to "treat the whole patient." This is an ironic argument as interventional radiologists obviously treat disease processes throughout the entire body. Cardiologists

historically have not done that; their knowledge and interest has been limited to the pericardium and its contents. Vascular surgeons have actively sought separation from their general surgical colleagues as an expression of their focus on one major body system. It is entirely reasonable to assert that the knowledge of the average interventional radiologist about diseases throughout the body exceeds that of the average interventional cardiologist or vascular surgeon.

Additionally, when one examines the quality of medical management of various disease conditions, the record of clinical specialties shows roughly 50 to 60% compliance, which would be a failing grade.⁸⁻¹⁴ Unfortunately for the public health, the bar of clinical management is low and public health guidelines are often ignored. Conversely, the slope of increasing peripheral artery stent placement over time is quite steep. This is certainly a black mark on American medicine and as good an argument for a single-payer system as any. The interventional radiologists' strong desire to prove their mettle as clinicians can be anticipated to motivate them to provide the most comprehensive management feasible. The lack of bad clinical habits to be broken means that interventional radiologists may do a better job of following practice guidelines for the various diseases that they treat, including renovascular hypertension, intermittent claudication, stroke prevention therapy, and superficial venous insufficiency.

Many of the typical referrals from primary care to vascular surgery are supported by implicit access to endovascular interventions, whether provided by the surgeons or by interventional radiologists acting as their proxies. Unfortunately, the good will that should go to the interventional radiologist is often credited to the surgeon accepting the primary care physician's referral. If the patient reports back to the primary care doctor and is satisfied with the service and if the interventional radiologist has had no interaction with the primary care doctor and the surgeon has, then it is natural that the primary care doctor will view the surgeon positively and send him or her more patients.

The primary care physician is essentially unaware that his or her patients' care was rendered by the interventionalist and the vascular surgeon was really only a middleman. This arrangement, which had been typical, undermines the long-term viability of interventional radiology practice. Interventionalists who establish themselves in clinical practice need to be recognized as the clinical subspecialist actually providing care to the referrer's patient. Copies of reports, consults, follow-up phone calls, and clinic visit updates should be directed to the referring doctor. Continued vascular surgery referrals are of minimal importance for the long-term viability of interventional radiology. They are an ephemeral gain with great associated long-term losses. Interventionalists who perform procedures at the behest of vascular

surgeons, under their direction, are inadvertently strengthening the vascular surgeons' relations with the primary care doctors while doing a disservice to the patients for whom they care.

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