Impotence and Heart Disease: A Case Report

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ABSTRACT: Thirty percent of United States men and over 300 million men worldwide suffer from erectile dysfunction. The majority of these cases stem from vascular issues. It has been described that 70% of patients with coronary disease have problems getting erections. We have treated many patients with this problem over the last 20 years with very satisfactory results, and drug-eluting stents have also been utilized to treat pudendal arteries. We present a case of a patient with impotence and internal iliac artery stenosis.

CASE REPORT

A 78-year-old active physician presented with right thigh and buttock claudication and impotence. Prescription erectile dysfunction (ED) medications were ineffective for the impotence. He was evaluated by primary care and found to have a normal testosterone level. The patient was a previous smoker, and also had hyperlipidemia and had a left anterior descending stent placed 13 years prior to this visit. He underwent right groin abdominal and long leg run-off. In addition to bilateral anterior tibial 100% occlusion, he had a subtotal proximal internal iliac artery complex 90% stenosis. Measurement of the gradient revealed a 60 mm drop across the lesion. A 6 Fr Destination sheath (Terumo Corporation) was placed and the lesion was crossed with a Cougar wire (Medtronic). We predilated the stenosis with a 5 x 20 mm Armada balloon (Abbott Vascular). We then placed a 7 x 19 mm Omnilink stent (Abbott Vascular). Unfortunately, in spite of the predilation, the stent didn’t fully cover the complex stenosis; this may have been due to the “watermelon seeding” effect. We therefore placed an 8 x 29 mm Omnilink stent, which resolved the stenosis. The gradient was reduced to zero.

DISCUSSION

Thirty percent of US men and over 300 million men worldwide suffer from ED. The majority of these cases stem from vascular issues. It has been described that 70% of patients with coronary disease have problems getting erections. We have treated many patients over the last 20 years with this problem with very satisfactory results, and drug-eluting stents (DES) implantation has also been utilized to treat pudendal arteries. Many of our patients had unilateral internal iliac artery stenosis. Stenting vessels this size can be performed with peripherally approved balloon-expandable stents. Of course, balloon-expandable stents are usually more accurately able to be placed. In smaller vessels such as the pudendal arteries, balloon-expandable DESs can be utilized. We have occasionally performed balloon angioplasty only in these patients, but the long-term success with this approach is unknown. The ZEN trial was the first study to ask whether DES implantation of the pudendal arteries could be effective. Unfortunately, this study was never completed, and there was a fairly high incidence of restenosis. The PERFECT-1 trial was begun to treat penile arteries with balloon angioplasty. Whether restenosis will be an issue in this trial remains to be seen. This is an important issue for virtually all men, and it is essential to discuss ED with your cardiovascular patients.

Figure 1 (Video 1). Angiography performed with an Omnilink catheter revealed the complex proximal internal iliac artery stenosis.
CONCLUSION

Six months after the procedure, the patient reported that he was achieving full erections and was able to have intercourse with completion. Incidentally, he was happy to report that his right thigh and buttock claudication had resolved. It is unusual that there was no common iliac artery disease in this patient, as the isolated internal iliac artery stenosis would in itself not be a likely cause of buttock claudication. His left internal iliac system was free of disease. Many of us have had extensive experience in either trying to maintain internal iliac arteries with endovascular aneurysm repair, or in some cases jailing them with common and external iliac intervention. I do believe this can result in not only impotence, but painful hip claudication. An increased awareness of this circulation for males needs to be emphasized. From a technical standpoint, we can approach these vessels from the radial approach in shorter male patients, but in general a contralateral approach is easier. In this case, we were able to complete a successful procedure even though we were in a less ideal ipsilateral position. Since these patients are at risk for continued peripheral vascular disease progression, as well as coronary artery disease, continued vigilance will be necessary in these patients. Antiplatelet agents and lipid-lowering agents are essential in many of these individuals.

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