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# In the Spirit of Medical Innovation

BY DHEERAJ RAJAN, MD, FRCPC, FSIR, FACR

It has always been the dream of any physician who performs dialysis interventions to create a dialysis access percutaneously. When I was asked in 2011 to join TVA Medical (now part of Becton, Dickinson and Company), to be a part of the early stage development team of the WAVELINQ™ EndoAVF System, I thought, “Okay, the concept may work theoretically, but it won’t work in practicality.” As the device and technique took shape, it was very exhilarating to witness our ability to perform procedures that resulted in patent dialysis fistulas. After our initial success, the thought was, “Let’s keep going, let’s do better, let’s create more opportunities.” That spirit of innovation, translated over the last 8 years, has led us to where we are now (Figure 1). I believe that the WAVELINQ™ 4F EndoAVF System gives physicians the ability to shorten the time between the original need for a fistula and actually getting it done because a surgical consult or procedure is no longer needed. Instead, if a patient comes in for a dialysis catheter, an endovascular arteriovenous fistula (endoAVF) can be created at that same visit. I would assume that many of you have dreamt of creating a functional percutaneous dialysis access as I did in the past, and you now have the opportunity to do it. I think that this will be pivotal in your practice. It’s an innovative, minimally invasive approach that I think patients will seek out and will stimulate further innovations. ■



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## DEVELOPMENT OF THE ENDOAVF

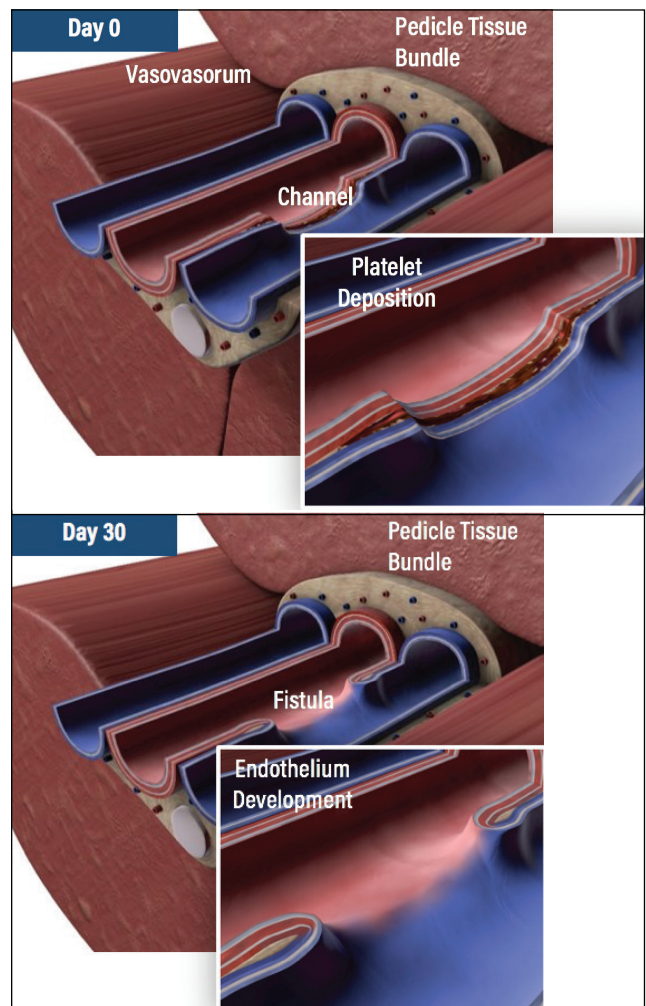


Figure 1. The endoAVF develops from a channel cut through tissue. Then, the blood follows the path of least resistance from artery to vein. Initial platelet deposition leads to endothelium development over time (within 30 days).