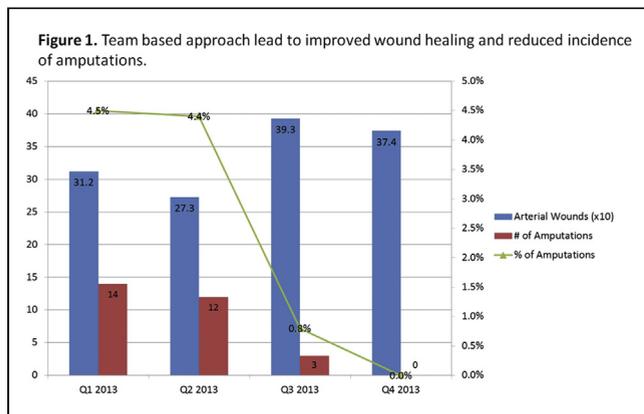


these patients healed within 25 days and the palliative patient population decreased by 40%.

**CONCLUSION** Creating a multi-disciplinary team dedicated to peripheral arterial disease (PAD) awareness and a limb preservation program leads to improved arterial wound heal rates and lower amputation rates. These results support the idea that the standard of care for CLI patients should mandate an immediate referral to a CLI program with an evaluation by a vascular specialist upon detection of a new wound. Therefore, vascular surgeons and endovascular specialists can play an important role in the formal wound care setting.



#### CRT-300.06

##### Efficacy and Histomorphologic Evaluation of a Novel Large Bore Vascular Closure Device in Swine

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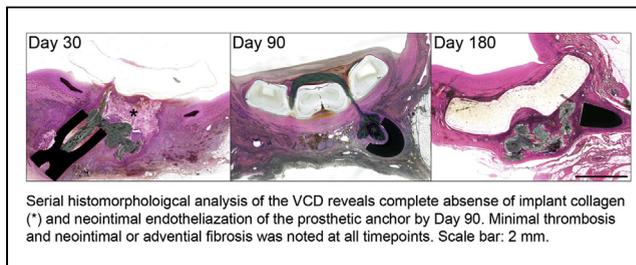
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**BACKGROUND** Vascular access site complications are a significant source of morbidity following percutaneous catheterization, particularly for interventions requiring large bore cannulation such as transcatheter aortic valve replacement (TAVR). The benefit of vascular closure device (VCD) over manual compression is most pronounced for large bore access and higher baseline risk. We report a novel vascular closure device (VCD) that utilizes a collagen implant secured by intraluminal anchor and is specifically designed for large bore cannulation.

**METHODS** Three Yorkshire swine underwent surgical laparotomy to expose the abdominal aorta. Three 18 French vascular access sites were obtained in each animal and closed with the VCD. Angiography was performed on Days 0, 15 and prior to necropsy. Limited necropsy was performed at Days 30, 90, and 180 for histomorphological analysis.

**RESULTS** All nine VCD deployments achieved patent hemostasis on first attempt as assessed by gross inspection and angiography. Serial histomorphological analysis revealed complete dissolution of implant collagen and presence of neointimal endothelialization of the prosthetic anchor by Day 90 day (Figure). Histological evidence of thrombosis was minimal at Day 30 and subsequently absent thereafter, and neointimal or adventitial fibrosis was minimal at all timepoints. There was no evidence of vascular occlusion or other complication at anytime.

**CONCLUSION** The novel VCD successfully closed large bore arterial access in swine without complication and favorable healing characteristics as assessed by serial histomorphology. This VCD is a promising platform for rapid, effective, and safe large bore arterial closure.



#### CRT-300.07

##### The Association of Cardiac Valve Sclerosis With Clinical Outcomes in Patients Undergoing Endovascular Revascularization for Peripheral Arterial Disease

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**BACKGROUND** Peripheral arterial disease (PAD) is known to be associated with poor outcomes and cardiac valve sclerosis (CVS) is reported to be associated with future cardiovascular events. We evaluated the association of CVS with the clinical outcomes in patients (pts) with PAD who underwent percutaneous transluminal angioplasty (PTA).

**METHOD** The outcomes of 298 consecutive pts with symptomatic PAD who underwent PTA were enrolled for analysis. Study populations were divided into two groups; PAD with CVS (n=41) and PAD without CVS (n=257). CVS (Aortic or mitral valve sclerosis) is defined as calcification and thickening of leaflets in aortic or mitral valve in the absence of obstruction of ventricular outflow. The incidence of restenosis, amputation rates and clinical outcomes were assessed at a follow-up of 2 years.

**RESULTS** Pts with CVS had higher incidence of wounds as the initial diagnosis for PAD (80.5% vs. 56.0%, p=0.003), diabetes mellitus (92.7% vs. 70.8%, p=0.002), hypertension (87.8% vs. 67.3%, p=0.009), chronic kidney disease (43.9% vs. 23.0 %, p=0.007), need for dialysis (34.1% vs. 16.0%, p=0.009), and previous history of percutaneous coronary intervention (26.8% vs. 13.6%, P=0.037). At 8 months follow-up, patients with CVS had higher rate of total occlusion of the limb (83.3% vs. 33.6%, p=0.023). At 2-year follow up, the incidence of repeat PTA and major adverse cardiovascular events (MACE) was similar between the two groups, but the pts with CVS had higher amputation rate (39.3% vs. 15.6%, p=0.005).

**CONCLUSION** In this study, patients with CVS had more frequently presented with critical limb ischemia, higher rates of total occlusion and amputation rate at 2 years following successful PTA compared with those of PAD without CVS. More intensive therapies will be needed for this particular subset of risky patients.

#### CRT-300.08

##### The Impact of Current Smoking on Clinical outcomes in Peripheral Arterial Disease Patients undergoing Endovascular Revascularization

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**BACKGROUND** Peripheral arterial disease (PAD) is known to be associated with poor outcomes. However, the impact of smoking on major clinical outcomes following percutaneous transluminal angioplasty (PTA) is not clear yet.

**METHODS** The 559 consecutive symptomatic PAD patients (pts) who underwent PTA were enrolled for this analysis. The incidence of restenosis, amputation rate and repeat revascularization were