CONCLUSIONS DCB is associated with improved TLR and primary patency at 12-months compared with BA with a trend toward improved outcomes for DES and BMS compared with BA. Head to head comparison for DCB vs stenting strategies is warranted.

CATEGORIES ENDOVASCULAR: Peripheral Vascular Disease and Intervention

TCT-812

Efficacy and Safety Evaluation of a Novel Endovascular Occlusion System in a Large Peripheral Preclinical Model

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BACKGROUND Endovascular occlusion of blood vessels represents a key component of interventional therapy. While coils are most commonly used, vessel occlusion is generally not achieved immediately and may necessitate a large number of devices. It has been suggested that endovascular plugs may overcome these limitations; however, immediate and durable occlusion remains a challenge with plugs as well. This study evaluates a newly designed endovascular occlusion system (ArtVentive EOS™).

METHODS The EOS combines a nitinol scaffold with an impermeable membrane made of expanded polytetrafluoroethylene (ePTFE). The scaffold offers sufficient radial force to create a sufficient vessel wall apposition and minimize post-deployment migration. Eight test devices were deployed in the left renal arteries of four miniature swine. Angiography was performed 1 and 10 minutes after device implantation. Follow-up angiography was obtained on day 30 (four devices) and day 60 (four devices) prior to devices harvesting for histological evaluation and biocompatibility assessment.

RESULTS All test devices were deployed as intended, and produced complete and immediate vessel-occlusion. No clinical complications were observed in the animals throughout the study course. No recanalization, acute or chronic device migration was observed in the renal arteries. Complete and durable vessel-occlusion without any sign of recanalization and evidence of distal ischemia (renal atrophy) was observed in all EOS devices during the follow-up period.

CONCLUSIONS The EOS is a safe and reliable device resulting in immediate and durable vessel occlusion in the renal arterial circulation and evidenced by complete end organ ischemia.

CATEGORIES ENDOVASCULAR: Peripheral Vascular Disease and Intervention

KEYWORDS Animal model, Endovascular treatment

TCT-813

Role Of Wallstents In The Treatment Of Chronic Inferior Vena Cava Filter Occlusion

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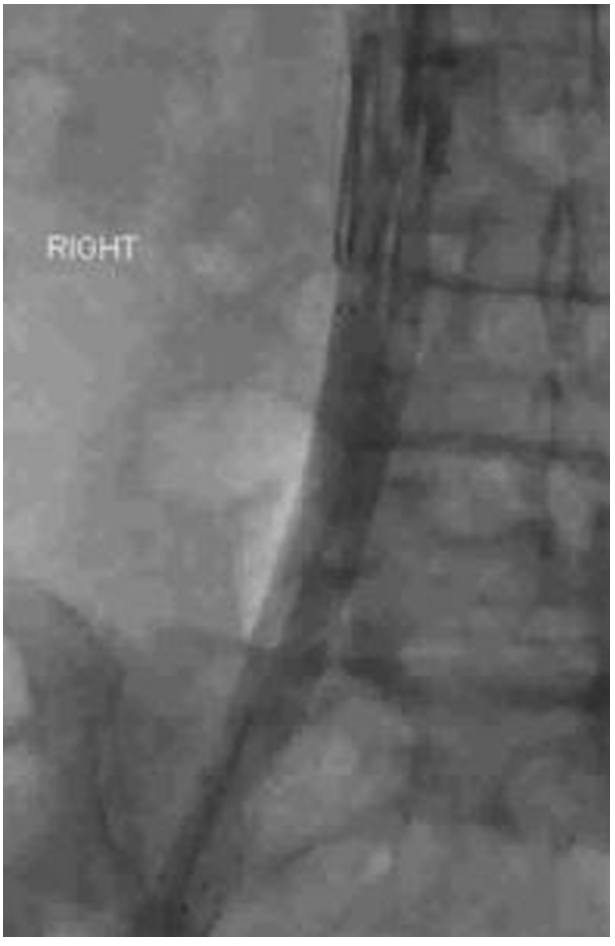
BACKGROUND Occasionally inferior vena cava (IVC) filters can become occluded leading to significant lower extremity morbidity. Percutaneous endovenous intervention (PEVI) with different modalities is the procedure of choice. Stents have been successfully used in maintaining patency of the IVC filter which is often contracted and fibrosed. In this report we discuss the outcome of placement of Wallstents in IVC filters at 28± 5 months of follow-up.

METHODS We placed Wallstents in 37 patients who had presented with chronic IVC filter occlusion. These stents were placed within or adjacent to the occluded IVC filter. The patients had presented with chronic bilateral lower extremity obstructive symptoms. Bilateral popliteal venous access sites were used in all patients as the initial approach. In 24 patients catheter directed thrombolysis was given with t-PA for 18-28 hours. All patients were placed on indefinite anticoagulation post-procedurally with rivaroxaban in 19 patients and apixaban in 18. Aspirin at 81 mg was given to 34 of 37 patients for 6 months.

RESULTS The patients' average age was 66± 7 years. The duration from IVC implantation was 5.7± 2 years. Crossing the IVC filter was from the popliteal vein in 31 patients and the right internal jugular vein in 6. The adjacent space between the filter and IVC wall was crossed in 9 and through the filter in 28 patients. Following placement of a Wallstent, post dilatation to burst pressure was performed by a high pressure balloon. The average diameter and length of the Wallstents were 16± 0.7 X 73±9 mm. Within hours of PEVI, patients' symptoms substantially improved. The stents were patent at a mean follow-up of 28± 5 months. There was no bleeding or recurrent venous thromboembolic disease (VTE) during the procedure or at follow-up.



CONCLUSIONS The results demonstrate that juxta or intra IVC filter stenting with a Wallstent is safe and effective in chronic IVC filter occlusions. Furthermore administration of new oral anticoagulants plus low-dose aspirin would prevent further IVC obstruction and VTE.

CATEGORIES ENDOVASCULAR: Peripheral Vascular Disease and Intervention

KEYWORDS Inferior Vena Cava Filter, Inferior Vena Cava Filter Thrombosis, Venous intervention