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Clinical Outcomes Using the Viabahn Stent Graft in Complex Femoropopliteal Lesions

Peter Mohr, Curtis Stinis
Scirptis Clinic, La Jolla, CA

Background: The optimal endovascular treatment for complex femoropopliteal (FP) disease is unknown. Percutaneous transluminal angioplasty (PTA) carries a high rate of restenosis while nitinol stent implantation can result in fractures. The Viabahn stent graft (Gore Medical, Flagstaff, AZ) was developed to reduce restenosis and increase overall flexibility. The purpose of this study was to evaluate the efficacy of the Viabahn stent graft in complex FP disease.

Methods: We evaluated 57 limbs in 48 patients receiving Viabahn stent grafts. Patient demographics, comorbidities, and procedural details were collected. Outcomes included primary patency, assisted primary patency, secondary patency, and pre- and postprocedural ankle brachial index and Rutherford classification.

Results: The study group consisted primarily of TASC II C (n=27;47%) and D (n=24;42%) lesions (mean age 74.5; male sex=68%). Indications for revascularization were lifestyle limiting claudication (70.2%), critical limb ischemia (28.1%), and popliteal aneurysm exclusion (8.8%). Twenty-six patients (46%) had undergone previous PTA, and 8 patients (14%) had undergone previous peripheral bypass. The average graft length was 25.4 cm, with an average of 2.1 grafts implanted. There were 8 Limbs (15.1%) experienced restenosis and 5 limbs (9.4%) had an occlusion. The mean follow-up of 8.5 months (range 1-22). Average ABI improved from 0.59 to 0.96.

Conclusion: Wound blush as an angiographic endpoint in EVT may be a novel predictor of limb salvage in patients with CLI.

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One year clinical outcomes of MISAGO2 the large multicentre study with Misago the new self-expanding nitinol peripheral stent - final results

Karl-Ludwig Schulte1, Ivan Kralji, Frank Vermassen1, Marc Sapoval1, Ralf Langhoff1, Stefan Müller Hülsbeck2, Jan H Perezgon1, Michael Akesson1, Thomas Zeller1, Wolfgang Ritze1
1Evangel Krankenhaus König Elisabeth Herzherge, Berlin, Germany; 2Diakonissenkrankenhaus Karlsruhe-Rüppurr, Karlsruhe, Germany; 3UZ Gent, Gent, Belgium; 4Hôpital Européen Georges Pompidou, Paris, France; 5Ev Luth, Diakonissenanstalt Flensburg, Flensburg, Germany; 6Clin. Cardiol., Inst. Clin. Exp. Med., Prague, Czech Republic; 7MAS Malmö University Hospital, Malmö, Sweden; 8Herzzentrum Bad Krozigen, Bad Krozingen, Germany; 9Klinikum Nürnberg Süd, Nürnberg, Germany

Background: The main purpose of this study was to assess on the large patient population the performance and clinical outcome of Misago SX nitinol stent in the treatment of superficial femoral (SF) or popliteal arteries

Methods: MISAGO 2 registry enrolled 744 patients undergoing percutaneous intervention of stenotic or occluded lesions in SF or popliteal arteries in 76 centres across Europe. In total 754 lesions were treated with 916 stents. All clinical events are independently adjudicated. The primary endpoint was absence of clinically driven target lesion revascularization at 6 and 12 months.

Results: Patients (67% male) were 69±10 years old, 68% had hypertension, 60% were smokers and 35% diabetes. Average lesion length was 64±38 mm, 38% lesions were totally occluded and 64% massively or moderately calcified. Technical and procedural success rates were 99%. 12-Month follow-up done on more than 90% of the subjects treated at baseline (655) showed freedom from target lesion revascularization of 89.6% and primary patency rate of 87.6%. Total number of subjects with any adverse event (any death, amputation, revascularization, vascular, bleeding and cerebrovascular event) was 14.8%. Ankle brachial index increased for more than 0.1 in 76% of the subjects and Rutherford index improved in 76% of the subjects. There was no clinically relevant (grade 3&4 out of 4) stent fracture reported in the study. Overall fracture rate was 3.1.

Conclusion: Results of the large multicentre MISAGO 2 registry that evaluated Misago RX system in SFA and popliteal arteries showed excellent TLR and primary patency rate at one year. Low fracture rate observed was not related with any of TLR occurred.

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Factors Related to the Failure of Limb Salvage Following Endovascular Therapy in Patients with Critical Limb Ischemia

Shin Okamoto, Osamu Iida, Masaki Uematsu
Kansai Rosai Hospital, Amagasaki city, Japan

Background: Although endovascular therapy (EVT) has been shown efficacious in patients with critical limb ischemia (CLI), EVT is not always successful in limb salvage. We sought to investigate the factors related to the failure of limb salvage following EVT.

Methods: Consecutive 358 legs from 307 CLI patients (Rutherford 4 to 6) who underwent EVT were enrolled between April, 2003 and April, 2009. Primary endpoint comprised amputation or bypass surgery. Patients were followed for 20±16 months. Logistic regression analysis was performed to explore the independent determinants of the prognosis of the legs.

Results: Initial success rate was 86%. Bypass surgery or amputation was done in 78 limbs. Age, ankle brachial index, hypertension, Rutherford class and distal blood flow below the ankle were chosen as independent variables by single regression analysis. Among these, distal blood flow was chosen as the strongest independent predictor associated with the prognosis of the legs by multivariate analysis (Table).

Conclusion: Poor flow below the ankle was the strongest factor related to the failure of limb salvage following EVT.

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Utilization of Imaging Modalities Prior to Amputation Among Patients With Peripheral Arterial Disease or Diabetes — A Nationwide Study

Sumnet Subherwal1, Emil L Fosbol1, Lars Kobler1, William S Jones1, Gunnar H Gislason1, Christian Torp-Pedersen1, Manesh R Patel1
1Duke Clinical Research Institute, Duke University, Durham, NC; 2The Heart Centre, Copenhagen University Hospital Hvidovre, Copenhagen, Denmark; 3Department of Cardiology, Copenhagen University Hospital Gentofte, Copenhagen, Denmark

Background: Non-traumatic lower extremity amputation is associated with significant morbidity and mortality. With the emergence of newer improved therapies for revascularization, the use of imaging to identify treatable disease prior to amputation is not known.

Conflict of Interest: No

TCT Abstracts/POSTER/Peripheral Vascular Intervention (non carotid, non neurovascular)