reinterventions, and vascular access patency (at months 1, 6, 12, 18, and 24) were examined.

Results: There were 27 patients (mean age, 62 years) who underwent covered stent placement (16 Viabahn, 13 Covera). In two cases, both stents were placed. Six patients had already been subjected to PTA because of recurrent stenosis; 21 had primitive stenosis. There were no perioperative complications. The patients were examined at 1 month, 6 months, 12 months, 18 months, and 24 months with clinical evaluation and ultrasound scan. Primary patency at 1 month, 6 months, 12 months, 18 months, and 24 months was 100%, 88%, 71%, 63%, and 58%, respectively. Primary assisted patency and secondary patency have been evaluated: 72% and 74%, respectively, at 24 months.

Conclusions: A covered stent in venous stenosis after vascular access is effective in treating complications and prolonging the life of the access, especially in prosthetic accesses, whose primary patency is 60% to 65% after 1 year in the literature data. There were no major complications in our experience, even if patients had multiple comorbidities. A larger number of patients during long-term follow-up are needed to obtain an exhaustive experience.

Author Disclosures: C. Maturi: Nothing to disclose; **M. Antonello:** Nothing to disclose; **S. Bassini:** Nothing to disclose; **C. Colacchio:** Nothing to disclose; **F. Grego:** Nothing to disclose; **M. Menegolo:** Nothing to disclose.

HDA 3.

A Prospective Randomized Study Comparing the Use of Paclitaxel-Coated Percutaneous Transluminal Angioplasty Balloon Catheters With Plain Balloon Angioplasty Catheters to Treat Stenotic Segments at the Venous Anastomotic Site After Thrombectomy for Thrombosed Prosthetic Vascular Grafts for Dialysis

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Objective: The objective of this study was to compare the success rate and primary patency of thrombosed prosthetic vascular access grafts of the upper limb after thrombectomy and balloon dilation of stenotic segments at venous anastomotic sites using either paclitaxel-coated percutaneous transluminal angioplasty (PTA) balloon catheters or plain balloon angioplasty catheters.

Methods: There were 37 patients with thrombosed prosthetic vascular access polytetrafluoroethylene grafts of the upper limb from October 2013 to February 2014 who were randomized into two groups. After thrombectomy of the prosthetic graft, patients in group A underwent balloon dilation of the stenotic segment at the venous anastomotic site using paclitaxel-coated PTA balloon catheters; in group B, they were treated using plain balloon angioplasty catheters.

Results: The success rate was 89.5% (n = 17) and 83.3% (n = 15) in both groups, respectively. The patency rate at 6 months was 82.4% for group A; in group B, it was 53.3%. After 1 year, the patency rate was 58.8% and 33.3% for both groups, respectively.

Conclusions: Paclitaxel-coated PTA balloon catheters have higher patency rates in comparison to plain balloon catheters, but still these results are statistically insignificant, possibly because of the small study sample.

Author Disclosures: M. Rizk: Nothing to disclose.

LUE 1.

A Comparative Analysis of the Results of Cyanoacrylate Ablation and Radiofrequency Ablation in the Treatment of Venous Insufficiency

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Objective: Varicose vein treatment has been directed toward less invasive yet lasting techniques. This study was designed to compare the effectiveness of cyanoacrylate ablation (CAA) with that of radiofrequency ablation (RFA).

Methods: The study included 524 and 202 patients who had undergone RFA (ClosureFast; Medtronic, San Jose, Calif) and CAA (VenaBlock Venous Closure System; Invamed, Ankara, Turkey), respectively, within the preceding 4 years. The mean age of the patients was 48.4 ± 11.3 years, and the mean follow-up time was 24.3 ± 3.2 months. Preoperative and postoperative Clinical, Etiology, Anatomy, and Pathophysiology (CEAP) class, symptoms, recurrence, and Doppler findings of the two groups were compared.

Results: Postoperative Doppler saphenous vein closure rates were 97.3% in the RFA group and 98.7% in the CAA group. The type of operation had no effect on postoperative symptoms, CEAP class, or Doppler findings. There is no efficiency difference between treatment methods. The predictors of postoperative CEAP class were preoperative CEAP class, bilateral limb disease, and prior deep venous thrombosis, whereas the predictors of symptom recurrence were postoperative perforator incompetence and preoperative CEAP class. The 2-year symptom-free survival rates were 66.3% in the RFA group and 61.9% in the CAA group. The Venous Clinical Severity Score decreased from 5.9 ± 1.1 to 0.8 ± 0.8 in the RFA group and from 5.7 ± 0.9 to 0.7 ± 0.6 in the CAA group. The Aberdeen Varicose Vein Questionnaire score decreased from 19.6 ± 5.4 to 4.8 ± 1.4 in the RFA group and from 18.7 ± 5.7 to 4.9 ± 1.3 in the CAA group.

Conclusions: The major disadvantages of current thermal ablation techniques, such as postoperative pain and discomfort as well as skin bruises, paresthesia, and burns caused by thermal damage, and the need for tumescent anesthesia caused an increasing need for the development of nonthermal, nontumescent options for shorter and more successful treatment of venous insufficiency. The CAA seems to be the closest technique to the ideal and suitable for all patients because it is nonthermal and nontumescent. The results are satisfactory and are comparable to those of RFA. When two techniques are evaluated, CAA may be preferable as a simple application in a shorter time with less early postoperative discomfort. However, long-term results and cost analyses of larger series still need to be documented.

Author Disclosures: F. Islamoglu: Nothing to disclose.

LUE 2.

Midterm Clinical Outcome of Minimally Invasive Vein-Restoring Treatment Method for Chronic Venous Insufficiency

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Objective: The conventional therapeutic option for varicose veins associated with significant saphenofemoral incompetence is high ligation, sclerotherapy, or thermal ablation, which includes a disadvantage that the vein is no longer available as a graft for future cardiovascular surgery. Internal compression therapy (RD Global-Invamed, Ankara, Turkey) is a new, minimally invasive procedure to restore venous valve competence by reducing the vein's circumference. The procedure is also called percutaneous valvuloplasty. We aimed to report our early and midterm results with demonstration of the efficacy of this technique.

Methods: From November 2017 to March 2018, there were 44 patients with chronic venous disease due to saphenofemoral insufficiency enrolled in this study. Average Venous Clinical Severity Score (VCSS) at baseline was 4.5 ± 1.26. After local anesthesia, a specifically designed nonabsorbable biopolymer was delivered with guidance of duplex ultrasound around the terminal valve of the saphenofemoral junction as an exoskeleton to reduce vein circumference and to fix the problem valve.

Results: After the procedure, venous reflux was completely abolished in 40 patients (90%; Fig). Average VCSS improved to 2.4 ± 1.3 in our patients. Mean duration of the procedure was 10 ± 2 minutes. No complications occurred. Patients were discharged on the same day. In a follow-up period of 4 months, clinical status was documented and the correction rate of the saphenofemoral venous reflux was assessed by color duplex ultrasound by the same radiologist. Average VCSS was still satisfactory (2.8 ± 1.4), and venous reflux was completely abolished in 37 patients (84%). Two patients (4.5%) had mild reflux and one (2.2%) had moderate reflux.