

Author Disclosures: K.J. Ozsvath, None; S.S. Saltzberg, None; J.B. Taggart, None; B.B. Chang, None; P.B. Kreienberg, None; M. Mehta, None; P.S.K. Paty, None; S.P. Roddy, None; Y. Sternbach, None; D.M. Shah, None; R. Darling, None.

PP86.

Intravenous Leiomyomatosis with Inferior Vena Cava and Heart Extension: A Report of 6 Cases

Bao Liu, Sr., Changwei Liu, Sr., Peking Union Medical College Hospital, Beijing, China

Background: Intravenous Leiomyomatosis (IVL) is a rare, histological benign but biological behavior malignant tumor. Literature reports on IVL are less than 200 cases, and most majority of them are individual reports.

Methods: Six patients with intravenous leiomyomatosis involved in the cava inferior vena were analyzed.

Results: Three patients received one-stage operation and two received two-stage operation. All the operations were successful. No perioperative death or other complications were observed. Among the six patients, primary tumor and intravenous tumor embolus were completely resected from four patients. Residual tumor was remained in one patient who had serious adherence due to multiple operations. However, with the anti-estrogen therapy, the residual tumor had significantly regressed. All the patients had tumor relapse after the operation.

Conclusion: We believe that IVL is group of disease and not a single disease entity. Although IVL is extremely rare, vascular surgeon must pay more attention to this disease. There are many therapeutic methods to choose from when uterine leiomyomatosis involves the cava inferior vena, among which operation is the best choice. Anti-estrogen therapy seems to be justified in patients with ER(+) and PR(+).

Author Disclosures: B. Liu, None; C. Liu, None.

PP87.

Iliac Venous Stenting for Lower Extremity Venous Stasis Disease

Saadi Alhabouni, Anil Hingorani, Enrico Ascher, Natalie Marks, Alexander Shiferson, Nirav Patel, Kapil Gopal, Theresa Jacob, Maimonides Medical Center, Brooklyn, NY

Introduction: In a small subset of patient presenting with severe venous stasis disease, we have been unable to identify the sources of reflux with standard duplex imaging of the superficial, deep and perforating veins. Recently we have been examining the iliac veins with IVUS and venography to identify stenotic lesions. We herein review our finding with this technique.

Study Population: Patients with chronic venous stasis symptoms not responding to conventional methods of treatment (leg elevation, compression stockings, Unna boots, radiofrequency ablation/stripping of varicose veins/perforators/great saphenous vein). 54 patients were included, all of which underwent iliac-femoral venography with assessment for stenosis. 24 (44.4%) patients had no detectable stenotic lesions and had no further intervention. 30 (55.6%) patients had stenotic lesions and underwent vein stenting. The stents spanned across the inguinal ligament in all but 3 patients (90%).

Results: The venography-only group included 24 patients with an average follow-up period of 4.5 months (range 1 week to 8 months). 11 (45.8%) had a CEAP of 6, only one of which (9.1%) healed their ulcers after 3 months. The vein stenting group included 30 patients with an average follow-up period of 3.4 months (range 1 week-10 months). 22 (73.3%) had an open ulcers, 11 (50%) of which healed their ulcers over a period of 1 week to 8 months (average 3.25 months). ($p=0.02$) (5.5%) patients developed complications. Two developed stent thrombosis (one with a documented hypercoagulable state, the other with a suspected hypercoagulable state). Both were re-opened and re-stented. One patient developed a superficial femoral artery pseudoaneurysm which was repaired with a stent graft. All patient not needing postoperative anticoagulation were able to be stented on an outpatient basis.

Conclusion: Many patients with lower extremity venous stasis symptoms have a component of iliac vein stenosis, and iliac vein stenting may especially help patients with open ulcers. In contrast to pre-existing series, only one-half of the patients were able to have lesions identified to be stented. The procedure is relatively simple and safe, and can be performed on an ambulatory basis.

Author Disclosures: S. Alhabouni, None; A. Hingorani, None; E. Ascher, None; N. Marks, None; A. Shiferson, None; N. Patel, None; K. Gopal, None; T. Jacob, None.

PP88.

Lower Extremity Occlusive vs Non-occlusive DVT and the Risk of Pulmonary Embolism

Saadi Alhabouni, Anil Hingorani, Enrico Ascher, Natalie Marks, Alexander Shiferson, Nirav Patel, Kapil Gopal, Theresa Jacob, Maimonides Medical Center, Brooklyn, NY

Introduction: Acute DVT has been appreciated as a risk factor for pulmonary embolism (PE). However, it is not known whether having an incomplete occlusion of the vein (Acute Non-Occlusive-ANO DVT) confers a higher risk of PE when compared to completely occlusive thrombi (Acute Occlusive-AO DVT). An incomplete occlusion indicates that there is some flow of blood around the clot, and whether that flow could dislodge the clot. Conversely, a completely occlusive clot may indicate a higher thrombus load and thus confer a higher risk of PE.

Methods: We reviewed 2894 consecutive lower extremity venous duplex studies performed for 2248 inpatients between November 2007-July 2008. All studies to evaluate for PE were noted. We divided the patients into 3 groups based on the location of their DVT: IVC/Iliac, Femoral-popliteal, and Infra-popliteal DVTs. Analysis was done on two sets of data. The first set included comparison of DVTs isolated to only one of the three anatomical groups. The second set compared DVTs based on the location of the most proximal clot.

Results: DVTs isolated to one anatomical group: In the IVC/Iliac vein group, only one isolated AO DVT was found with no evidence of PE (0%). Two ANO DVTs were identified with evidence of PE in one (50%). ($p=0.667$). In the Femoral-popliteal group, 31 isolated AO DVT were found with evidence of PE in 6 patients (19.3%). 64 isolated ANO DVT were found with evidence of PE in 8 patients (incidence of 12.5%). ($p=0.374$). In the Infra-popliteal group, 140 patients with isolated AO DVT were identified with evidence of PE in 12 of them (incidence of 8.6%). 21 patients with isolated ANO DVT were identified with evidence of PE in one (incidence of 4.8%). ($p=0.471$) Analysis based on the most proximal DVT: In the IVC/Iliac vein group, 41 AO DVT was found with evidence of PE in four (9.75%). 30 ANO DVTs were identified with evidence of PE in two of them (6.67%). ($p=0.496$). In the Femoral-popliteal group, 83 AO DVT were found with evidence of PE in 17 patients (20.5%). 125 ANO DVT were found with evidence of PE in 14 patients (11.2%) ($p=0.075$).

Conclusion: There is no difference in the risk of pulmonary embolism between acute occlusive and acute non-occlusive DVTs, and hence both should be treated similarly.

Author Disclosures: S. Alhabouni, None; A. Hingorani, None; E. Ascher, None; N. Marks, None; A. Shiferson, None; N. Patel, None; K. Gopal, None; T. Jacob, None.

Endovascular AAA

PP89.

Treatment of Acute Iliofemoral Deep Vein Thrombosis: A Systematic Review and Meta-analysis

Edward T. Casey¹, M. Hassan Murad¹, Mark Meissner², Magaly Zumaeta Garcia¹, Mohamed B Elamin¹, Qian Shi¹, Patricia J Erwin¹, Victor M Montori¹, Peter Glocviczki¹. ¹Mayo Clinic, rochester, MN; ²University of Washington, Seattle, WA

Objectives: To conduct a systematic review of the literature to identify and summarize the best available evidence about the efficacy of the different treatments for acute iliofemoral deep vein thrombosis (catheter-directed thrombolysis, surgical thrombectomy and systemic anticoagulation).

Methods: Electronic databases (MEDLINE, EMBASE, Cochrane CENTRAL, Web of Science, and SCOPUS) were searched with appropriate terms through February 2008. Eligible studies were controlled trials (randomized or non randomized) that enrolled participants with acute iliofemoral thrombosis. Relative risks (RR) were pooled from each study using random effects model and I² statistic was used to assess heterogeneity.

Results: Compared with systemic anti-coagulation, thrombectomy was associated with a statistically significant reduction in the risk of developing postthrombotic syndrome (RR 0.67 (95% confidence interval [CI], 0.52-0.87; I²=0%) and venous reflux (RR 0.68; 95% CI, 0.46-0.99; I²=43%), and a trend for reduction in the risk of venous obstruction (RR 0.84; 95% CI, 0.60-1.19; I²=66%). Compared with systemic anti-coagulation, catheter-directed thrombolysis was associated with statistically significant reduction in the risk of postthrombotic syndrome (RR 0.19; 95% CI, 0.07-0.48; I²=64%), venous reflux (RR 0.21; 95% CI, 0.09-0.53; I²=0%) and venous obstruction (RR 0.35; 95% CI, 0.17-0.34; I²=68%). Subgroup analyses showed no significant interactions between effect size and the time lapsed since symptoms onset or the proportion of patients lost to follow up. The superiority of thrombectomy over anticoagulation was significant in