



Society for Clinical Vascular Surgery

NEWSLETTER

Fall 2002

Message from the President



Enrico Ascher, M.D.

Dear Colleagues:

The upcoming Annual Symposium to be held in Miami, Florida promises to be the best ever! Preparations for this event started well in advance and several new scientific and social programs have been added to make it even more exciting and enjoyable. The Executive Council, the Program Committee and I are working diligently for the success of this meeting and we have been receptive to the wishes of our membership. Clearly, it is our intention to awaken this giant and establish the SCVS among the three most prestigious societies in the world.

As always, we are committed to the practicing vascular surgeon and it is our goal to ensure that the SCVS provides an adequate forum for interactive discussions of important issues affecting our specialty and our daily clinical practice. To this end, we have updated some of the most popular postgraduate symposia including endovascular techniques, venous diseases, arterial-venous access for hemodialysis and non-invasive diagnostic vascular laboratory. Ken Cherry and Tony Sidawy will chair video sessions and in-depth discussions on complex limb salvage and open aortic surgery. Since we are indeed vascular specialists and not only surgeons, Peter Lawrence has organized a practical course on vascular medicine. Sam Money

has enlisted several experts to speak on how to build your practice and income. Kim Hogdson and I will be participating with many others in a forum for a consensus statement regarding revascularization versus amputation for lower limb ischemia.

This year's Hume Lecturer is Robert W. Hobson, III and the Distinguished Visiting Lecturer is Frank J. Veith. As you know, these surgeons are among the most well regarded vascular leaders of our times and undoubtedly they will deliver spectacular presentations. Invited speakers from Europe and South America will share their overseas experiences while being couriers of the goals of our Society including expansion of the international membership.

(continued on page 12)

SAVE THE DATES!

SCVS
31st Annual
Symposium on
Vascular Surgery

March 5 - 9, 2003
Hotel Inter-Continental - Miami, Florida

Highlights:

- Non-Invasive Vascular Lab
- Arterio/AV Access
- Vascular Medicine for Vascular Surgeons
- Venous Disease
- Endovascular Surgery
- How to Build Your Vascular Practice and Income
- Peripheral Limb Salvage - How-to Videos
- Aortic Surgery - How-to Videos

VISIT

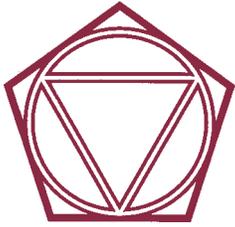
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SOCIETY FOR CLINICAL VASCULAR SURGERY



30th ANNUAL SYMPOSIUM ON VASCULAR SURGERY
of the Society for Clinical Vascular Surgery
March 14-17, 2002
Four Seasons Resort, Las Vegas, Nevada

SESSION I – ARTERIAL DISEASE

Popliteal-Crural Bypass Through Posterior Approach Utilizing Lesser Saphenous Vein for Limb Salvage

A. Goyal, MD, P. M. Shah, MD, S.C. Babu, MD, R.B. Mateo, MD, New York Medical College, Valhalla, NY

Nineteen patients with limb threatening ischemia underwent 19 popliteal-crural bypasses via posterior approach with patients in prone position, utilizing reversed lesser saphenous vein.

The authors concluded that the posterior approach is an acceptable alternative to traditional bypass procedure with excellent early patency and limb salvage rates. It has advantage of better utilization of lesser saphenous vein and easier operative exposure in patients with short segment infra-popliteal occlusive disease. In our experience, patients also appear to have less wound healing problems and are able to ambulate faster.

Does Subintimal Angioplasty have a Role in the Treatment of Severe Lower Extremity Ischemia?

E.C. Lipsitz, MD, F.J. Veith, MD, T. Ohki, MD, W.D. Suggs, MD, J. Cynamon, MD, N. Cayne, MD, N. Gargiulo, MD, Montefiore Medical Center, Bronx, NY

Thirty-two patients with arterial occlusions were treated with SIA. SIA was technically successful in 27 patients. The authors concluded that SIA is feasible and can be effective in some patients with lower extremity arterial occlusions and threatened limbs. In this series bypass options were not affected by unsuccessful SIA. These results, plus SIA's many advantages, support an increasing role for it.

Ultrasound Arterial Mapping Prior to Femoral-Popliteal Reconstruction in Claudicants: A Proposal for a New Shortened Protocol

E. Ascher, MD, A. P. Hingorani, MD, S. Kallakuri, MD, R. Schutzer, MD, T. Costa, MD, N. Markevich, MD, W. Yorkovich, MD, Maimonides, Medical Center, Brooklyn, NY

The feasibility of a shorter protocol was evaluated. The short protocol was developed from a retrospective analysis of the authors experience with 36 claudicants who had the long protocol prior to arterial reconstructions. It was defined as scanning of the common, deep and superficial femoral arteries and popliteal arteries. The suggested order is peroneal, anterior tibial and posterior tibial artery due to ease of imaging.

The authors concluded that in the majority of claudicant patients without clinical suspicion of aortoiliac disease a short ultrasound mapping protocol to plan femoropopliteal revascularization is effective.

The Combined Use of Iliac Artery Stenting with Infringuinal Revascularization for the Treatment of Multilevel Occlusive Disease

P.S.K. Paty, MD, G. Siskin, MD, M. Mehta, MD, R. Clement Darling, III, MD, P.B. Kreienberg, MD, B.B. Chang, MD, S.P. Roddy, MD, K.J. Ozsvath, MD, D.M. Shah, MD, Albany Medical College, Albany, NY

The authors examined the results of iliac artery percutaneous transluminal angioplasty and stent (PTAS) followed by infringuinal bypass for multilevel occlusive disease. The authors concluded that the results of concomitant iliac PTAS and infringuinal revascularization for treatment of multilevel symptomatic arterial occlusive disease are similar to those of infringuinal revascularization without the need for iliac PTAS. Therefore, the combined use of iliac PTAS and subsequent distal revascularization is an effective treatment strategy for patients with multilevel arterial occlusive disease.

Preoperative Clinical Risk and Severity of Coronary Artery Disease in Vascular Surgery Patients

T. Birdas, MD, S.A. Leers, MD, T. Reifsnnyder, MD, P. F. Caushaj, MD, Western Pennsylvania Hospital, Temple University School of Medicine, Western Clinical Campus, Pittsburgh, PA

Dr. Birdas and colleagues of the Western Pennsylvania Hospital presented their experience of 49 patients who underwent cardiac catheterization prior to lower extremity revascularization procedures and correlated the clinical risk factors, as identified by the Lee's Revised Cardiac Risk Index, with the severity of the underlying coronary artery disease based on coronary angiography. The Lee's Revised Cardiac Risk Index was created for preoperative evaluation on patients undergoing non-cardiac surgery using 6 clinical criteria, which included 1) high risk surgery, 2) history of coronary artery disease, 3) history of cerebrovascular disease, 4) diabetes requiring insulin, 5) renal insufficiency and 6) history of congestive heart failure. The authors categorized the patients into either a low risk patient group (n=25) or high risk patient group (n=24). In the low-risk patient group, 14 (56%) had an abnormal coronary angiogram and 6 (24%) underwent prophylactic coronary revascularization. In contrast, 14 (58%) of the high-risk patients had abnormal coronary angiogram and 5 (21%) underwent coronary bypass prior to their lower extremity revascularization. Dr. Birdas and colleagues found that the Lee's Revised Cardiac Risk Index failed to predict the absence of significant coronary artery disease and the need for coronary revascularization in patients undergoing lower extremity bypass. The authors concluded that reliance on clinical criteria alone may lead to significant underdiagnosis of coronary artery disease in the low-risk patient group.

Review by Peter Lin, M.D.

SESSION II—NON-INVASIVE DIAGNOSIS & ASSESSMENT

Efficacy of Ultrasound Contrast Agents in the Non-Invasive Follow-up of Aortic Stent Grafts

P. J. Bendick, PhD, P.G. Bove, MD, G.W. Long, MD, G.B. Zelenock, MD, O. William Brown, MD, William Beaumont Hospital, Royal Oak, MI

Using a 1cc intravenous bolus of ultrasound contrast (Optison®), ten patients with aortic stent graft were evaluated with duplex ultrasound for endoleaks compared to duplex ultrasound with color-flow and computed tomography. In this small cohort, five endoleaks were present and all were identified by duplex ultrasound with contrast while duplex ultrasound with color-flow had two false positives and computed tomography had one false negative. The presentation gave a concise overview on the mechanisms of ultrasound contrast and clearly demonstrated with multiple video-clips how the agent will most certainly become another vital tool for the detection of endoleaks. Considering the variety of imaging modalities available now to identify endoleaks, a "preliminary" algorithm of the order of use would have been helpful.

Review by Robert B. McLafferty, M.D.

Cerebral Hyperperfusion Syndrome Following Carotid Endarterectomy: Changes of Internal Carotid Artery Volume Flows and Other Hemodynamic Parameters

E. Ascher, MD, N. Markevich, MD, A. Hingorani, MD, S. Kallakuri, MD, T. Costa, MD, R. Schutzer, MD, Maimonides Medical Center, Brooklyn, NY

Cerebral hyperperfusion syndrome (CHS) is believed to be caused by the loss of cerebral autoregulatory mechanisms resulting from chronic cerebral ischemia (hypoperfusion). In this series, CHS symptoms were: severe headaches requiring delayed hospital discharge in four patients, seizures in two

patients, and visual disturbances and ataxia in one patient. Measurements of mean internal carotid artery volume flows (MICAVF) were noted to be elevated during the symptomatic period. These high flows returned to levels seen in asymptomatic patients after symptoms had subsided. No correlation could be found between the development of CHS and any of the studied risk factors, such as severe contralateral carotid disease, increased intraoperative cerebral perfusion, severe hypertension, or technical issues. The study suggested that the incidence of CHS was higher in patients with bilateral CEAs when there was a shorter interval between the operations. Other studies referred to did not show this correlation, and indeed, in our practice where virtually all patients are done with regional anesthesia, selective shunting and eversion endarterectomy, no association has been noted between CHS and operative interval. In fact, in those patients with bilateral disease, commonly, only a 24-48 hour delay occurs between the staged endarterectomies.

Review by Michael L. Gelfand, M.D.

Renal Duplex Scanning: Is it Worthwhile?

H.A. Brings, MD, A.T. Wright, BS, RVT, M.R. Trivonovich, BS, RVT, H.R. Baele, MD, M.C. Hutton, MD, J. Goldstone, MD, University Hospitals of Cleveland and CWRU School of Med., Cleveland, OH

This article from the group at University Hospitals of Cleveland concerns duplex scanning for both the diagnosis of renal artery stenosis and postoperative surveillance. The authors conclude that duplex scanning is valuable, sensitive, and cost-effective when done by trained personnel in an accredited vascular laboratory. Due to the seemingly random referral sources for the renal duplex scans, the authors' believe this test to be underutilized as a screening test for renal artery stenosis. Of note, this particular vascular laboratory is exceptional in that its four vascular technologists perform more than 470 studies per month, of which, approximately 24 are renal duplex scans. Thus, renal duplex scanning may be time-consuming in a less proficient laboratory.

Review by Ruth L. Bush, M.D.

SESSION III - AORTIC SURGERY

Decline of Aortic Aneurysm Surgical Training for General Surgery Residents in the Era of Endovascular AAA Repair

W. Charles Sternbergh, III MD, J. York, MD, S.R. Money, MD, Ochsner Clinic Foundation, New Orleans, LA

SUMMARY: The authors have analyzed the volume of open and endovascular AAA repair over a 5-year period (1996-2001), and compared the experiences of general surgery residents to that of vascular fellows at The Ochsner Clinic Foundation in New Orleans, LA. During this timer period, the vascular surgeons developed an endovascular program that lead to a 2-fold increase in the volume of AAA repairs. The total number of open AAA repairs decreased by only 15%, although the complexity of open repairs increased substantially (juxta/pararenal AAA: 2.9% in 1996 vs. 23.3% in 2001). The cumulative mean general surgery resident experience with open AAA repair fell significantly (9.5 + 5.1 cases in 1996, 4.2 + 2.5 cases in 2001), and the vascular fellow experience with both open and endovascular AAA repair increased. The authors concluded that "the introduction of endovascular AAA repair has negatively impacted general surgical resident exposure to open AAA repair, and it may be unrealistic to expect general surgery residents to gain profi-

ciency necessary to perform AAA repair without additional training."

COMMENTARY: Vascular surgery is changing at an accelerated pace, not only due to our increasing knowledge base, but also due to new technology. Today, it is hard to imagine that a general surgeon with exposure to 5 AAA repairs during residency would be sufficiently trained to do their 6th AAA repair as the attending surgeon. This extremely important study, which I certainly hope the authors will publish, illustrates the unrealistic expectations of the American Board of Surgery of wanting to have their general surgery residents finish training with enough experience to perform AAA repair.

Review by Manish Mehta, M.D.

Durability of Thoracoabdominal Aortic Aneurysm Repair in Patients with Connective Tissue Disorders

A. Dardik, MD, Ph.D, T. Krosnick, PA-C, A. Perler, MD, G. S. Roseborough, MD, G. Melville Williams, MD, The Johns Hopkins Hospital, Baltimore, MD and St. Mary's Hospital, Waterbury, CT

SUMMARY: The authors have analyzed the durability of thoracoabdominal aortic reconstructions for aneurysms and dissections in patients with and without connective tissue disorders (CTD). Over a 9-year period, 32 patients with CTD and 198 without underwent TAAR. The mean follow-up was 29 months (range: 0-105 months). The 5 year cumulative survival was 54.3% + 4.5%, and there was no difference in patients with and without CTD, or with different Crawford classes. Although paraplegia occurred more frequently in patients with CTD (15.6%) than without CTD (8.6%), this difference was not found to be statistically significant (p=0.21). Age was the only positive predictor of mortality. Surprisingly, the presence of CTD, as well as the location of aneurysms / dissections did not predict mortality.

COMMENTARY: The authors presented an encouraging report of the treatment options for thoracoabdominal aortic aneurysms and dissections in patients with CTD. These patients usually have a high prevalence of Type II aneurysms and associated dissections. Regardless, with improvements in operative techniques, anesthetic care, and perioperative management, patients with CTD can undergo TAAR with low morbidity and mortality.

Review by Manish Mehta, M.D.

Technical Considerations for Late Removal of Aortic Endografts

S.P. Lyden, MD, J. M. McNamara, RN-C, MS, Y. Sternbach, MD, CM, K. A. Illig, MD, D.L. Waldman, MD, R.M. Green, MD, The University of Rochester, Rochester, NY

Summary: The authors reviewed their experience with late removal of 5 aortic endografts for device failure (1), rupture (1) and endoleak (3). The grafts (4 Vanguard, 1 Talent) were in place a mean of 31 months and were removed via midline(3), bilateral subcostal(1) and thoracoretroperitoneal(1) incisions. There was one death (20% mortality). Supraceliac aortic control was obtained in all cases, and the ease of graft removal was device related.

Commentary: The authors recommend thoracoretroperitoneal exposure for devices with suprarenal fixation + extension of the aortotomy above the renal arteries. The morbidity of this exposure is probably not necessary as supraceliac aortic control can be obtained through a 10th interspace incision without thoracotomy. If there is no infection, removal of the entire device may not be necessary, thus reducing the perioperative morbidity.

Review by Philip S. K. Paty, M.D.

Elective and Emergent Abdominal Aortic Aneurysmectomy in Patients with Coexisting Aortic Dissections: Perioperative and 1-Year Survival Rates

R. J. Anand, B.A., M. C. Proctor, M.S., M.J. Eagleton, MD, P.K. Henke, MD, T.W. Wakefield, MD, L.A. Jacobs, MD, D.M. Williams, MD, G. Michael Deeb, MD, J.C. Stanley, MD, L.J. Greenfield, MD, G.R. Upchurch, Jr., MD, University of Michigan Health Systems, Ann Arbor, MI

Summary: The authors assessed the operative risk and outcome in 18 patients undergoing AAA repair over 15 years with an aortic dissection originating in the thoracic aorta. There were 17 Type III and 1 Type I dissections. AAA's repaired emergently (4) and electively (14) had 75% and 0% mortality rates, respectively. Demographics did not predict mortality in emergent patients



whereas cardiac disease was a risk factor for late mortality in the elective group. Neither endovascular treatment of the dissection with stent graft placement nor true lumen fenestration improved survival after emergent AAA repair. Commentary: Although the sample size is small, this study emphasizes the poor outcome associated with emergent repair of AAA in setting of aortic dissection. The mortality in these cases is similar to that of ruptured AAA.

Review by Philip S.K. Paty, M.D.

Treatment of the Septic Aorta with in Situ Cadaveric Homograft

D.L. Stroman, MD, B.L. Smith, MD, D.R. Gable, MD, R.M. Goldstein, MD, G.J. Pearl, MD, Baylor University Medical Center, Dallas, TX

Summary: Dr. Stroman presented Baylor University experience of treating 7 patients with aortic infection treated with excision of infected aorta and/or prosthetic material along with in situ replacement with ABO blood group matched fresh cadaver arterial and venous homograft over 13 years period. In all patients femoral arteries were involved. Prior to homograft replacement, each patient underwent multiple procedures (4.3/pt). Post reconstruction antibiotics were continued for 6 weeks only. One patient died after 90 days. One patient developed aneurismal changes 3 years postoperatively. There was no limb loss of graft infection. Followup was 6 weeks to 10 years.

Commentary: This is yet another interesting alternative way to deal with potentially lethal condition. The problem is that one can only get fresh cadaveric ABO typed aortic homograft at places where there is an active transplantation program. This is certainly not end-all treatment but a bridge treatment. Contrary to conventional practice, 6 weeks of post operative antibiotic was sufficient to eradicate the infection in this series.

Review by Pravin Shah, M.D.

Factors Predicting Prolonged Length of Stay After Aortic Surgery

J.Chang, MD, K.D. Calligaro, MD, J.P. Lombardi, MD, M.J. Dougherty, MD, Pennsylvania Hospital, Philadelphia, PA

Summary: In order to predict factors prolong the length of stay after aortic surgery, Dr. Chang and associates analyzed pre, intra and post operative factors in 240 patients underwent aortic surgery and followed clinical pathways at Pennsylvania Hospital. Mean LOS for all patient was 8.2 + 5.7 and mean LOS for patient without complications was 6.9 + 2.9 days. Interestingly pre-op co-morbid condition, type of anesthesia or retroperitoneal approach did not influence length of stay. Increased age, surgery for occlusive disease, complexity of surgery and postoperative complications did contribute to increase LOS. Author suggests that since complications are directly related to the hospital volume and experience of surgeon, third party payer should direct patients to documented centers of excellence.

Commentary: As oppose to clinical guidelines, clinical pathways involve all segments of healthcare system and provide efficient use of the hospital resources without compromising the care. Dr. Calligaro and his group have previously shown benefit of clinical pathways in aortic surgery. Now they present detailed analysis of factors that increase the LOS. With use of clinical pathways Podore and Throop from Cincinnati, Ohio have shown LOS reduced to three days after infrarenal aortic surgery by a single surgeon. One of the factor unaccounted is when patient who is medically ready for discharge but does not go home for "socio-economic" reasons!

Review by Pravin Shah, MD

SESSION IV - AAA/ENDOVASCULAR REPAIR

The Talent LPS AAA Stent-Graft: Results of a Phase II Clinical Trial

F.J. Criado, MD, R.M. Fairman, MD, G.J. Becker, MD, Union Memorial/ Medstar Health, Baltimore, MD

The authors assessed the safety and effectiveness of endovascular repair of AAA with the bifurcated Talent LPS stent graft in comparison with open standard surgery. The authors concluded that endovascular treatment of AAA with the bifurcated Talent LPS device on good surgical-risk patients compared favorably with standard open repair in terms of morbidity and clinical utility, and had similar operative mortality, with highly satisfactory midterm outcomes. This was especially significant in light of the high proportion of morphologically challenging aneurysms that were treated. Longer follow-up beyond the 12-month study endpoint will be essential to confirm durability of demonstrated clinical efficacy.

The Peter B. Samuels Award Winner Juan Ayerdi, M.D.

Indications and Outcomes of Patients in the Phase III Trial Versus Commercial AneurRx

J. Ayerdi, MD, R.B. McLafferty, MD, M. Solis, MD, L.A. Gruneiro, MD, D.E. Ramsey, MD, J. Parra, MD, K.J. Hodgson, MD, So. Illinois Univ, Springfield, IL

Recent approval of certain grafts by the United States Food and Drug Administration for erAAA has created controversy about whether indications for repair and outcomes have changed. The authors examined erAAA with and without the use of strict inclusion and exclusion criteria of a clinical trial. They concluded that patients undergoing erAAA in Group I had significantly larger AAA compared to Group II. The common iliac arteries were smaller in Group I with statistical significance observed on the left. Although statistical significance was not observed when comparing internal iliac artery embolization, more patients in group II had this procedure. These data demonstrate increased flexibility in anatomic indications whereby the commercial availability of AneurRx has allowed for the treatment of patients with common iliac artery aneurysm who also have smaller AAA. With this change, satisfactory short-term outcomes are evident as compared to erAAA in the Phase III Trial.



Endoluminal Aneurysm Repair in Patients with Renal Insufficiency

B.G. Rubin, MD, L.A. Sanchez, MD, E.T. Choi, MD, P. Geraghty, MD, R.W. Thompson, MD, M. Wayne Flye, MD, G.A. Sicard, MD, Washington Univ., St Louis, MO

Summary: A five-year experience with 347 patients who underwent elective infrarenal endoluminal aneurysm repair was reviewed. Seventy-two of these patients (21%) had renal insufficiency (RI) defined as a serum creatinine (SC) of >1.5 mg/dl. Sixty-two of these patients had moderate renal insufficiency (SC 1.5-2.4 mm/dl) and 10 had severe renal insufficiency (SC > 2.5mm/dl). Three patients in the latter group were on hemodialysis preoperatively. Intraoperative hydration, mannitol and non-ionic contrast were used in all renal insufficiency patients. An average of 153cc of contrast was used intraoperatively. Five of 62 patients (8%) in the moderate RI group showed a rise in SC following the procedure. None of the patients in the severe RI group showed a SC increase post operatively but one of the non-dialysis patients required the initiation of dialysis. Comparing the RI group to the normal SC group there was almost a statistically significant SC elevation postoperatively in the RI group (p= 0.054). The postoperative mortality for the RI group overall was 6 of 72 patients (8%) with only three of 275 patients (1.1%) in the normal renal function group succumbing post operatively. This was a significant difference (p<0.004). Death was due to myocardial infarction, arrhythmia, sepsis or colorectal ischemia. There were no significant differences in mortality between the patients with moderate (8%) and severe (10%) renal dysfunction. Thus RI represented an 8% risk for elective endoluminal aneurysm repair but these deaths were not directly related to the presence or severity of preoperative renal dysfunction. The need to institute dialysis after endoluminal repair in the RI group was exceedingly rare occurring in less than 2% of patients.

Commentary: The presence of renal insufficiency appears to be a marker for high mortality even when the aneurysm repair is done in endovascular fashion. Perhaps consideration should be given to performing endoluminal repair in patients with RI only when the aneurysm is greater than 6 cm in size.

Review by Mark L. Friedell, M.D.

Predicting Iliac Limb Occlusions After Bifurcated Aortic Stent Grafting: Anatomic and Device Related Causes

A. Carroccio, MD, P.L. Faries, MD, N. Morrissey, MD, J. Burks, MD, E.Gravereaux, MD, L.H. Hollier, MD, M.L. Marin, MD, Mount Sinai Medical Center, New York, NY

Summary: Over a 4-year period the Mt. Sinai group deployed 289 bifurcated endografts for treatment of aortic aneurysms. Six different devices were used but the vast majority were Talent grafts (202). The total rate of limb occlusion for all devices was 3.7%. There was no significant increased risk of thrombosis for any single device. Half of the occlusions occurred within 30 days of surgery. There were two statistically significant variables regarding propensity to graft limb occlusion: 1) small graft limb diameter (< 14 mm) and 2) distal graft termination site on the external iliac artery. Unsupported grafts tended to occlude more often. All patients developed symptoms of their occlusions. One-third developed claudication that was managed conservatively. Most of the other patients underwent a femoral-femoral crossover graft to reestablish flow to the occluded leg. All 8 patients with occlusion of a graft limb deployed to the external iliac artery required revascularization. In conclusion, the use of small diameter grafts and extension to the external iliac artery should be avoided when possible. Advances in graft design to minimize kinking would help prevent this problem.

Commentary: Dr. Kim Hodgson related his very positive experience with use of the Angiojet™ to treat such graft limb occlusions. His preference was to try this first rather than going immediately to a femoral-femoral crossover graft. Another questioner suggested the use of intravascular ultrasound to evaluate the graft immediately following deployment.

Review by Mark L. Friedell, M.D.

SESSION V - VENOUS DISEASE

Optimal Therapy for Advanced Chronic Venous Insufficiency

R.L. Tawes, MD, M. Barron, MD, A. Coello, MD, D. Joyce, MD, R. Kovenbach, MD, U.C.S. F., Scottsdale, AZ

Dr. Tawes presented a multicenter, retrospective review of 832 patients who underwent balloon dissection with subfascial endoscopic perforator surgery (SEPS) including posterior compartment fasciotomy for patients with incompetent perforators and advanced chronic venous insufficiency (CEAP classification C4-C6). 92% healed their ulcers or improved in 4-8 weeks with < 3% complication rate (para-dyesthesias, DVT (2 pts), PE (1 pt)). 32(4%) recurred in 2 yrs (#1 reason - missed or new perforators). Questions: Should we do earlier stage (C3) patients? - NO / Was DVT prophylaxis used? - NO, only 20-30 min procedure / Problems with obese patients? - A little harder to gain access and increased leaks at the fascial site. He recommended using a purse string at the fascial site.

Review by Neal S. Cayne, M.D.



Proliferative Capacity of Venous Ulcer Fibroblasts in the Presence of PDGF

R. Vasquez, MD, D. Goodwin, B.S., B.J. Marien, MD, C.S. Seidman, MD, J.O. Menzoian, MD, J.D. Raffetto, MD, Boston Medical Center, Boston, MA
Dr. Vasquez presented a study in which they subjected fibroblasts cultured from venous ulcers and from normal skin to PDGF (isoform 'd-3) to test for increased proliferative capacity. Although there was a significant increase in normal fibroblast cell proliferation, the venous wound fibroblasts did not exhibit an enhanced proliferative capacity. The lack of increased proliferation in these cells may be attributed to decreased or altered PDGF receptors. Their data did not support the use of PDGF for venous ulcer treatment.

Questions: Regranex? - Approved 1998 for DM ulcers. Likewise, venous ulcers probably won't respond secondary to decreased receptors. Apligraf? - May work through a synergistic effect of a combination of many factors released in response to apligraf.

Review by Neal S. Cayne, M.D.

Endovascular Recanalization of Central Vein Occlusions

M.J. Verta, Jr., MD, J.A. Blonder, MD, Evanston Northwestern Healthcare, Northbrook, IL

Dr. Verta's presentation describes their "aggressive" approach to endovascular recanalization of central vein stenosis, with 18 patients treated over a 6 year period. Etiology was felt to be related to dialysis catheter(6), infusion port(7), thoracic outlet compression(3) and unclear cause(2). Time from onset of clinical symptoms averaged 2.9 days. Treatment protocols involved transcatheter thrombolytic infusion (urokinase) followed by high-pressure (16-20 ATM) angioplasty followed by Wallstent placement (in non-TOS patients). Technical success was reported in all cases. No complications were noted. Clinical parameters improved in all patients treated. At mean followup of 17.2 months, 14 of 17 remained patent and symptom free.

Discussants pointed out the heterogenous nature of the patient group and inquired what percentage of patients were on hemodialysis. Questions were raised about percutaneous mechanical thrombectomy devices and their role in this entity. It was suggested that long-term followup may show dramatically worse results and this technique, while valuable, may often not provide long-term benefit to many patients with central vein occlusions.

Review by Steven M. Hertz, M.D.



Inferior Vena Cava Filters in Patients with Malignancy

B. Jarrett, MD, M.J. Dougherty, MD, K.D. Calligaro, MD, Pennsylvania Hospital, Philadelphia, PA

Dr. Jarrett's presentation summarized a 7-year experience with IVC filter placement in 116 patients with known malignancies at Pennsylvania Hospital. Retrospective review showed a variety of malignancies, most commonly gastrointestinal and lung. Many of the malignancies were advanced at the time of filter placement, with 79% deemed Stage IV disease. A contraindication to anticoagulation was the most common indication cited for filter placement. Deep vein thrombosis was seen in 76 patients and pulmonary embolism in 59. Greenfield filters were used in most cases. Results were excellent, with procedure-related hematomas occurring in 4%. Progression of DVT was seen in 2 patients and 3 pulmonary emboli were diagnosed in patients with filters (2 fatal). Patients survival was astoundingly low with only 50% surviving 6 weeks and 20% alive at 1 year.

The authors appropriately pointed out that while the procedure itself was "successful", this likely represented little clinical benefit and poor resource utilization. The audience raised questions about the mechanism of pulmonary embolism in this ill patient group. The prophylactic use of filters was discussed.

Review by Steven L. Hertz, M.D.

SESSION VI – CAROTID ARTERY SURGERY AND STENTING

A Reassessment of Carotid Endarterectomy in the Face of Contralateral Carotid Occlusion: Surgical Results in Symptomatic and Asymptomatic Patients

C.R. Rockman, MD, W. Su, MD, P.J. Lamparello, MD, M.A. Adelman, MD, G.R. Jacobowitz, MD, P.J. Gagne, MD, R. Landis, RN, T.S. Riles, MD, NY Univ. Med Ctr, New York, NY

The authors reviewed a prospectively compiled database of all primary CEA's performed at their institution; surgery was performed in 2420 patients, of whom 338 had a contralateral total occlusion (14.0%). They concluded that The presence of a contralateral occlusion does not appear to increase the perioperative risk of CEA. Although the risk of CEA in symptomatic patients with a contralateral occlusion may be slightly increased, this must be weighed against their risk with medical treatment alone. CEA can be performed safely in patients with contralateral occlusion, and should not necessarily be considered a "high-risk" condition for surgery in favor of angioplasty and stenting.

Intraoperative Use of a New Angle-Independent Doppler Assessment of Hemodynamic Adequacy Following Carotid Endarterectomy

T.E. Rasmussen, MD, J.M. Panneton, MD, M. Kalra, MD, J. Hofer, MD, B.L. Lewis, MD, T.C. Bower, MD, K. J. Cherry, Jr., MD, A.A. Noel, MD, P. Glowiczki, MD, Mayo Clinic, Rochester, MN

The authors' objective was to assess the intraoperative use of a new angle-independent Doppler device, EchoFlow® (EF), in measuring carotid artery velocities following endarterectomy and to specifically determine its reproducibility and accuracy.

The authors concluded that measurements of carotid artery velocity performed using the angle-independent Doppler EchoFlow® following endarterectomy are reproducible and comparable to those obtained with duplex ultrasound. This novel inexpensive device provides useful intraoperative assessment of hemodynamic adequacy of carotid endarterectomy.

Initial Experience with Cerebral Protection Devices to Prevent Embolization During Carotid Artery Stenting

T. Ohki, MD, F. J. Veith, MD, J. McKay, RN, W.D. Suggs, MD, E. Lipsitz, MD, Montefiore Medical Center, Bronx, NY

Twenty-one patients with carotid artery stenosis, most of whom were consider high risk for CEA, were treated with BAS in conjunction with either the PercuSurge Guide Wire or the Cordis Angioguard filter under an investigator sponsored IDE.

The authors concluded that BAS using cerebral protection devices can be performed safely with a high technical success rate. Although many patients treated with BAS were high-risk, the neurological complication rate was low and appears superior to that of BAS performed without cerebral protection devices. Tight lesions and tortuous anatomy may make the use of these devices difficult. Further study is warranted.

Symptomatic Coronary Artery Disease is a Relative Contraindication to Carotid Angioplasty and Stenting

K. Kasirajan, MD, J.M. Marek, MD, M. Langsfeld, MD, University of New Mexico, Albuquerque, NM

COMMENTARY. It is often assumed that carotid angioplasty and stenting is less risky and hence preferable for patients with symptomatic coronary artery disease. The authors evaluated and compared the results of stenting in symptomatic cardiac patients to patients with normal cardiac stress tests. They found higher incidence of perioperative events such as MI and CHF in symptomatic patients. They concluded that carotid angioplasty and stenting should be relative contraindication in this group of patients. The discussants noted that carotid stenting may be less invasive but since it affects the carotid sinus physiology, it can be risky in cardiac patients. Dr. Ricotta wondered how this will compare to open CEA with coronary artery surgery. Caution towards better patient selection was made.

Review by Shekeeb Sufian, M.D.

Outcome of Non-Operative Management of High-Grade Carotid Stenosis

V. Erzurum, MD, F. Littooy, MD, G. Steffen, P.A., C. Chmura, MD, M. A. Mansour, MD, Loyola University Medical Center, Maywood, IL

COMMENTARY: The authors compared the results of nonoperative management of high grade stenosis between patients that refused surgery and those that were denied surgery because of comorbid conditions. Those that refused had lower neurological event free rate and 9% crossed over to CEA. Those that were denied had no difference in event free rate. Therefore they concluded that non operative management is acceptable alternative in patients with dismal life expectancy. During the discussion it was noted that the survival period in these patients is so short that comparison is difficult. The question of whether stenting may be better for these patients was raised. Dr. Ricotta pointed that choosing the most at risk patients with asymptomatic carotid stenosis will be the challenge.

Review by Shekeeb Sufian, M.D.

Presidential Address - John J. Ricotta, M.D.



In his presidential address, Dr. Ricotta relayed some of the frustration experienced by established vascular surgeons in regaining or transferring into their practices new technology which, vascular surgeons, by our own admission, have forfeited by default. The address outlined Dr. Ricotta's personal experience in regaining skills for which inactivity had left him rusty in their application. Of particular import was his opinion that continued inertia by proposing solutions of short-term training programs, often less than thirty (30) day preceptorship, justifiably raises skepticism. Similarly, adding a well-trained Endovascular Surgeon to an established Vascular Surgery practice was not the answer in Dr. Ricotta's opinion. The message of this address, certainly supported by most of us, is for vascular surgeons to insist that a non-surgical interventionalist adhere to the same basic set

of rules as vascular surgeons in treating vascular disease. This would minimally include the knowledge that the mere presence of a stenosis or occlusion is not in itself, an indication for intervention, as vascular surgeons learned during the late fifties and sixties. Vascular surgery consultation with preoperative non-invasive laboratory evaluation before intervention and post intervention non-invasive laboratory surveillance for effectiveness and durability are minimum standards. As Dr. Ricotta pointed out, unnecessary intervention is just as detrimental as unnecessary surgery. The evidence to date supports a current product of a team approach utilizing the cognitive and technical skills of the vascular surgeon with the catheter skills of the interventionalist is the preferred approach to Endovascular surgery. As Dr. Ricotta succinctly concluded -"Get involved and just do it."

The message of this address is for vascular surgeons to insist that a non-surgical interventionalist adhere to the same basic set of rules as vascular surgeons in treating vascular disease.

Review by C. Allen Wall M.D.

Vascular Access Symposium

The vascular access symposium provided not just a review, but also new, practical information for all clinicians who treat this challenging group of patients. Drs. Ascher and Sidawy moderated the session. Dr. Ascher began by reviewing the DOQI clinical practice guidelines. Access issues are responsible for a large number of hospitalizations for hemodialysis patients, and the overall importance of autologous access is highlighted by the fact that there has been an overall increase in Medicare costs for dialysis, much of which is due to access issues alone.

Dr. Sidawy raised several issues in his session regarding reporting standards which were reported in the March issue of JVS. He also outlined the Herculean effort required to obtain new CPT codes. Alternative graft materials were reviewed with the emphasis on the ideal graft material, which would have excellent patency combined with a low complication rate (pseudoaneurysm formation, infection, steal, bleeding) and allow early access. Polyurethane, bovine, cryopreserved, PTFE and the LifeSite port were all reviewed. Current data and technical tricks and tips on vein transpositions, specifically the basilic-brachial transposition were discussed. Notable was the high rate of maturation of these fistulae, coupled with a slightly higher rate of steal syndrome than other access. With the liberal use of duplex ultrasonography for access planning, the DOQI requirements cannot only be achieved, but also surpassed.

In discussion the preservation of access, access salvage must also be addressed. Overall, an all-endovascular program for access salvage is associated with a higher cost, and lower success than an all-open program. The ideal strategy seems to be a carefully planned combination of the two. The issue of infected access was addressed with a very systematic method for management. The treatment algorithms presented were based on characteristics of both the type of access and the extent of infection. Given the prevalence of previous central access in these patients, and the preponderance of multiple previous procedures, the occurrence of venous stenoses remains a problem. The diagnosis and treatment of stenoses as based on anatomic location was discussed. Overall, the session was both timely and informative.

Review by Leila Mureebe, M.D.

DOQI Recommendations

Enrico Ascher, M.D.

Reporting Standards

Anton N. Sidawy, M.D.

Alternative Graft Materials

Larry Scher, M.D.

Vein Transpositions

Michael Silva, M.D.

Clips vs. Sutures for Anastomosis

Arnold Miller, M.D.

Management of Steal Syndrome

Harry Schanzer, M.D.

Thrombectomy vs. Lysis

Alan Lumsden, M.D.

Management of Infected Accesses

Keith Calligaro, M.D.

Management of Central Venous Stenosis/Occlusions

Thomas Panetta, M.D.

The International Symposium: Developments in Vascular Surgery in Europe



Introduction

Visiting Professor Dr. William Paaske of Denmark provided a brief overview of the organization of surgery in Europe. He stressed the necessity for European unification; however, a variety of problems exist due to cultural differences and sensitive political issues. Among the EUMS, (European Union of Medical Specialists), vascular surgery is considered separate from general surgery, akin to an independent board. The main issue with convergence of the vascular surgery societies from the different European nations seems to be individual laws and certifying requirements. Vascular surgeons must formulate the standards and monitor their own profession.

Vascular registries in Europe: Why are these of interest for the clinical vascular surgeon in the USA?

T. Troeng, MD, Sweden

Vascular registries have been existence in Europe for many years. The development of a registry must track three main components: the patient, the procedure, and the postoperative follow-up. The goals of SWEDVASC are to monitor changes and developments within vascular surgery, to serve as a base for clinical research, to aid in the planning of patient care and physician training, and to serve as a means of quality assessment.

From 1987 through 2002, over 100,000 cases have been entered. Dr. Troeng related several important results of the registry: the delineation of regional variations in patient disease and epidemiology, the fact that reoperative activity constitutes a significant proportion of vascular surgical activity, the monitoring of changes in vascular surgery, the increased use of endovascular technology, and increased professional networking and cooperation among different institutions. The establishment of a database can improve the quality of patient care. Information from the database has helped to establish appropriate boundaries for outcome. For example, the stroke rate after CEA should be <3%, and the mortality from elective abdominal aortic aneurysm repair should be <3%.



High-tech research in Europe: Magnetic resonance investigations -beyond imaging.

W. P. Paaske, MD, Denmark

Dr. Paaske presented fascinating pictures of magnetic resonance images of the aorta, carotid arteries, lower extremity vasculature and coronary arteries. These super-precise techniques actually combine anatomy and physiology. The sophisticated techniques described can measure and assess the velocity of the vector of blood flow, and the direction of flow at multiple locations within the blood vessel; subsequently, a three-dimensional image is reconstructed. This technique can precisely measure mechanical components of flowing blood such as wall shear stress in different exact locations. This technique has several possible clinical applications; it may be able to predict which aortic aneurysms will be prone to rupture. Evolving MRI techniques can serve as a tool for the surgeon to explore super-precise methods to evaluate the hemodynamics and mechanics of the major vessels.

Endovascular Surgery in Europe

P. Cao, MD, Italy

The United States has the FDA. The analogous organization in Europe is the CE Mark. The FDA requires that a new device or medication demonstrate safety and efficacy prior to approval. To obtain the CE mark, a new device or medication must only demonstrate safety. As a result, multiple endovascular AAA devices are available and approved in Europe, allowing the European surgeons to apply the technology to a greater variety of patients. Monitoring of a device continues after the CE mark is obtained by registries, audits, and trials. A proposed body called the "European Vascular and Endovascular Monitor" is being established for self-assessment and quality assurance. Currently, 67% of endovascular procedures in Europe are performed by a multidisciplinary team of vascular surgeon and interventional radiologist. Current statistics indicate that of all carotid procedures, 8% are stents while 92% are open. Of AAA procedures, 10% are stents, while 90% are open. The increased use of endovascular procedures is occurring despite under-reimbursement and lack of data from randomized clinical trials.

Carotid surgery in Europe: Why do we think differently?

C. Liapis, MD, Greece

Dr. Liapis outlined important differences between the ECST and NASCET. The ECST was not a randomized trial. Any patient with a recent (<6 month) non-disabling event and ipsilateral carotid stenosis of any severity was eligible to participate, regardless of patient age. The ECST encompassed 3024 patients: 1213 medical and 1811 surgical cases. Additionally, the way in which the degree of stenosis was calculated differed from NASCET, with the carotid bulb used for the denominator rather than the distal internal carotid artery. Results for the ECST were rather similar to NASCET: for ECST stenosis >80% (approximately equivalent to 70% NASCET), the absolute benefit of surgery over medical therapy was 11.6%. However, many patients with recently symptomatic severe stenosis may not necessarily benefit from surgery.

Dr. Liapis stressed that further risk factor analysis is needed. He also emphasized that especially in asymptomatic patients, surgeons must

(continued on next page)

combine the degree of stenosis with the type of plaque and clinical risk factors. We must be able to more accurately identify patients with active atheromatous lesions at high risk for stroke who would benefit from CEA; careful patient selection is mandatory. Eversion carotid endarterectomy is used with greater frequency in Europe than it is within the United States.

Advanced limb salvage**M. Lepantalo, MD Finland**

Dr. Lepantalo stressed that for the healing of large foot lesions both revascularization and soft tissue coverage are required. He presented his work with combined lower extremity revascularization and free-flap coverage. Muscle flaps utilized included most commonly the latissimus dorsi, rectus abdominis, gracilis and tensor fascia latae. A vascular surgery team in addition to a plastic surgery team are utilized. Often, simultaneous debridement, revascularization and free-flap coverage are performed. An end-to-side anastomosis between the free-flap artery and the bypass graft is utilized. In certain cases runoff may be optimized using an adjunctive arteriovenous fistula. The patients may not weight bear for 4-8 wks. Postoperative complications can include: hematoma, thrombosis, wound trouble, infection, and edema. However, often dramatic limb salvage is accomplished. In conclusion, Dr. Lepantalo stated, "muscle is magic."

Review by Caron Rockman, M.D.

Modern Vascular Laboratory: Updates on Diagnostic and Therapeutic Techniques

Laboratory Coding and Reimbursement Issues in the Vascular Surgery**Anton Sidawy, MD**

Payments to the laboratory are divided into those for the technical component and the interpretation fee. The hospital and office space technical component fees and codings were reviewed as well as changes occurring from the years 2001-2002. The fact that other sonographic procedures such as cardiac echo may bill for the addition of Doppler and color duplex was mentioned, however, no such system exists for the vascular laboratory. Interpretation fees including the Medicare fee schedule also were reviewed and the various declines over the past few years were discussed. Over the previous ten years, from 1992-2002, the reimbursement for technical components adjusted for inflation was unchanged, whereas physician reimbursement for the interpretation component has declined by 37%. New codes were also reviewed including the addition of thrombin injection under ultrasound guidance. Mechanisms of payment including HCFA decisions on how much to pay and the decisions of whether or not local carriers will pay were also reviewed. Mechanisms for dealing with denials were discussed.

Tips and Techniques for Non-Invasive Evaluation of Upper Extremities or Access Planning**Michael Silva, MD**

Dr. Silva reviewed their assessment of dialysis quality outcomes using a data system. Strategies for increasing the use of autogenous vein were also reviewed. An algorithm used by the authors was described and includes use of autogenous vein as a priority over using the non-dominant extremity, the use of temporary catheters whenever necessary and a preference for peripheral before proximal exposures. Methods for assessing veins and selection criteria were also discussed. The authors found that greater than 50% of fistulas could be performed with autogenous vein in patients that were previously not thought to have vein available. The rate of autogenous vein use increased from 14 to 63% after instituting the protocol and is now more than 90%. With the increasing use of autogenous vein the authors have noted an increase in long-term patency. In a review of 128 patients that failed PTFE grafting, over 50% had usable veins. They concluded that all patients should still be considered candidates for autogenous vein use after a failed PTFE graft is o.k. and that duplex is a better predictor than simple ultrasound.

Value and Limitations of a Short Protocol for Carotid Screenings**Michael Silva, MD**

The committee on public education and community outreach is designed to increase public awareness of and promote vascular surgery as a unique specialty. The committee has three separate subcommittees including 1) development, 2) public education, 3) community outreach. The short protocol for vascular disease screening is a function of the latter subcommittee. The screening will focus on three areas, cerebral vascular, aortic, and peripheral vascular disease. The method for a rapid carotid scan was discussed. If a given set of criteria are met, that patient would then be referred for a full evaluation. The rapid carotid scan ultrasound of the abdominal aorta and ABI all can be done in 6 minutes and may provide an effective screening tool. The program, whose name will change, currently is identified as lifescan.

Basic Principles in Real Time Imaging Spectral Doppler Analysis and Color Flow**David Pilcher, MD**

Dr. Pilcher thoroughly reviewed many of the basic principles of ultrasound physics. Review of the various transducers including linear sequenced array, convex array, and phased were also discussed. Mechanisms to enhance the performance of routine examinations and also to more thoroughly evaluate color changes during the scans were also discussed.

(continued on next page)

Modern Vascular Laboratory *(continued from previous page)*

Duplex Arteriography as an Alternative to Invasive Methods for Infringuinal Reconstructions: Experience with 500 Cases

Anil Hingorani, MD

Dr. Hingorani reviewed the limitations and potential complications of the angiographies as well as the advantages and again limitations of duplex examinations. Lessons from the preoperative duplex experience in more than 500 cases were reviewed. Over a 4-year experience, only 5% of patients ultimately required any sort of angiographic evaluation. Five out of 500 patients required iliac stenting and 2 out of 255 patients required a jump graft. Advantages and techniques for imaging iliacs and tibial vessels were similarly discussed.

Optimal Non-Invasive Graft and Patient Surveillance of Lower Extremity Vein Bypasses

Peter Lawrence, MD

Dr. Lawrence reviewed several studies and the rationale for surveillance including improving patency and the chance of successes with revisions. In the presence of a normal duplex and normal ABI, there was a virtually 0% chance of thrombosis. In the presence of an abnormal duplex but a normal ABI, there was only a 4% chance of thrombosis. With an abnormal duplex and ABI, there was an up to 66% chance of graft thrombosis. Techniques for scanning and the somewhat variable criteria for intervention were also reviewed. Early flow disturbances are more likely to require repair and all vein grafts are likely to need some sort of revision in the future. However, the proximal and distal artery may not need to be imaged if the vein is used as the conduit. The cost continues to be lower for grafts that require revision vs. those that thrombose. A recommended surveillance protocol was discussed as well as its cost-effectiveness.

Duplex Follow-up of Infringuinal Prosthetic Arterial Bypasses: Why and How Often?

Keith Calligaro, MD

Dr. Calligaro began with a poll of the audience revealing that most vascular surgeons do perform routine surveillance of prosthetic grafts. Reasons to perform surveillance in these situations was reviewed 1) including the progression of inflow and outflow disease. This suggests that the inflow and outflow arteries do need to be evaluated when a prosthetic graft is present and 2) to look for the presence of intimal hyperplasia. A previous study in the Journal of Vascular Surgery from 1991 from the Montefiore Group had shown that the patency of revised closed prosthetic grafts was worse than revised failing prosthetic grafts. The sensitivity of duplex for prosthetic grafts is much greater than that of pressures or pulse volume recordings. The sensitivity is also greater at the tibial level than at the popliteal level. Several studies have shown an 88-95% sensitivity for femorotibial prosthetic bypasses vs. 57 -65% for prosthetic femoropopliteal bypasses. Criteria for intervention including a peak systolic velocity of greater than 300 ratio of adjacent peak systolic velocities of greater than 3.5 a uniform peak systolic velocity of less than 45 and monophasic waveforms were reviewed. It was unclear whether or not all lesions need to be fixed and anastomotic criteria were not clearly defined. Again, an algorithm for surveillance of these grafts was discussed. Evan C. Lipsitz, MD - Involving the Use of Vascular Laboratory to Identify Immediate Endoleaks and Other Complications of Stented Grafts- “; A protocol for duplex scanning following endovascular aortoiliac aneurysm repair was reviewed. The importance of familiarity with the different types of grafts and the nuances required for the scanning of each was also discussed. Several complications that can occur following stented grafts including endoleaks (the various types) as well as kinking and twisting and extrinsic compression were discussed and examples shown. Duplex surveillance offers many advantages over CT scanning including the avoidance of IV contrast and radiation exposure, as well as being inexpensive, rapid, readily available and easily repeatable. Several recent studies have shown that duplex may be predictive of type two endoleaks that may go on to close. The panel discussion moderated by Dr. Kim Hodgson discussed many interesting and important questions that had been raised during the session.

Review by Evan Lipsitz, M.D.

Returning to the Basics

Is there one physician who did not begin his career with that wonderful (but naïve) attitude of wanting to be the best and perhaps even to be considered as outstanding by your peers? The lure of adventures in medicine and the challenges of surgery, or any one of the specialty areas, was sheer excitement. As the years rolled by, reality set in with the pressures of generating sufficient income to cover rent, salaries, premiums and tuition. Even the role models at this critical stage offered no solace but rather justification for activities that would have been unthinkable in our formative years.

Each of us needs to take the time and look into ourselves and at ourselves. Are we truly happy with what we are doing? Couldn't we just revert to some of the goals that we had originally set for ourselves? The answer is an obvious yes. We need to reestablish our original orientation and goals. We need to

recognize that what we deal with is not simply a commodity, but rather human values, life and death and the quality of existence. Our patients are grateful to us, but we must, in turn, be humbled by their trust and confidence in allowing us to provide care, which at times may be fraught with its own dangers.

If I could legislate physician responsibilities, I would include the requirement to be academically productive in a concrete fashion. This not being possible, it behooves each of us to consider such activities on a personal and inspirational basis. Our past performances were monitored and assessed on the basis of written examinations that included preparation of manuscripts. It is equally appropriate that our current clinical performance be assessed in a similar manner. SCVS should serve as a vehicle for each and every one of us to consider information our colleagues of achievements, frustrations, and goals.

H. Dardik, M.D.

Hume Memorial Lecture New Technology- The Issues Raise Concern K. Wayne Johnston, M.D.

Dr. Johnston's eloquent and timely lecture focused on the rapid emergence of new technologies, the ethics of accurate data reporting, and the importance of informed patient consent. He discussed the possible corporate interference in studies on new technology and the possible conflict of interest by investigators. He pointed out the current enthusiasm for endovascular surgery may in part be due to biased data and corporate assistance. The data that is being reported may actually be comparing apples with oranges. Whereas open surgical repair of AAA mortality is 5%, endovascular repair will be lower if a biased set of patients is used for comparison. Endovascular procedures apply to specific patients with specific parameters to qualify for a stent-graft. Open procedures apply to all patients. Taking that reasoning further, he questioned if endografts are really an advance. They may have a high cost, little benefit and significant risk. Little basic research has been published to validate the technology or to compliment that research with comparative clinical studies.

He then discussed the components of a study: funding, design, analysis, white paper and peer reviewed publication. Interestingly, those reports written by MD's receiving corporate benefits were more favorable than that report by MD's not receiving corporate support.

Conclusively, white papers should be written by primary investigators and not by company writers. And those studies and reports should take into account patient's rights.

Patients rights should be considered of prime importance in both the design of a study and its reporting. Recognizing that issue, the *Journal of Vascular Surgery* has introduced Conditions of Contract for papers being written for the Journal. Authors will now be required to include in their manuscript information on study design, funding and who wrote the paper, among other requirements.

In summary, Dr. Johnston's talk was about truth, ethics and the finer principles of research and reporting. When introducing a new technology we need to consider patient's rights, avoid any conflict of interest, remove corporate influence in the clinical studies and accurately report the design and results of the study.



Review by Charles Klieman, M.D.

The William J. von Liebig Foundation Chair Presentation to JOHN J. RICOTTA, M.D., President

Thank you, I am pleased to represent the William J. von Liebig Foundation at this 30th Annual Symposium on Vascular Surgery presented by the Society for Clinical Vascular Surgery. We are very happy to be able to honor your President, John J. Ricotta, MD for his contributions to your society and to the field of vascular surgery. The von Liebig Foundation continues to provide Awards, Grants, and Fellowships to vascular specialists. von Liebig Awards of nearly \$500,000 are now funding 6 vascular surgeons in the Mentored Clinical Scientist Award Program, jointly sponsored by The Lifeline Foundation and the National Heart, Lung and Blood Institute.

The von Liebig Foundation has also provided a grant to the SCVS in support of this business meeting and luncheon and the Foundation recognizes the career achievements of vascular surgeons through the Annual Awards and Presidential Chairs that are presented to the Presidents of four Vascular Surgical Societies. Today, it is my pleasure to present this latter award to your President, John J. Ricotta, M.D.

Dr. Ricotta was born in Buffalo, NY; he received his undergraduate degree from Yale University and his MD from Johns Hopkins University School of Medicine. His training at Hopkins continued with completion of Internship, Residence and Fellowship programs. Dr. Ricotta has held appointments at the University of Rochester, the State University of New York at Buffalo, and he is currently the Chair of the Department of Surgery and Chief of Vascular Surgery among other appointments, at the State University of New York at Stony Brook. Dr. Ricotta is a mentor and educator and has trained or directed over 30 Research Residents and Vascular Fellows. He has publications that number

in the hundreds, has made numerous presentations and has been the recipient of many Research Grants. Finally, he is very active in local, regional, national and international Professional Societies. The title of Dr. Ricotta's Presidential address was "Old Dogs and New Tricks". In it, he addressed the dilemma of transferring new technologies to practicing vascular surgeons. He told us that old dogs can learn new tricks if a distinction is made between training new trainees and experienced vascular surgeons. He stressed an incremental approach to learning endovascular skills and further emphasized the importance of cognitive knowledge for all interventional specialties to remain grounded in what is best for the patient. Finally, he reminded experienced vascular surgeons to start learning and using these skills; they give one a new perspective on problems and new ways to treat patients. Thank you for your contributions Dr. Ricotta and congratulations to you and to the Society for Clinical Vascular Surgery. Our Presidential award to you and the Society is in a few parts. First, I will present you with a check for \$4,000 made payable to the Society for Clinical Vascular Surgery. I understand these funds will be used for educational purposes and in the development of residents and fellows. Next, I would like to give you a paperweight and framed plaque commemorating your Presidency. And finally, we are providing a Liberty chair with an attached emblem with your name and carrying the Society's logo, commemorating your Presidential year.

We wish you continued success in your many endeavors. Long may you preach, teach, clamp, cut, and sew.

Jean A. Goggins, Ph.D.,
Executive Director



Thank you

Our sincere appreciation to the following physicians who agreed to serve as session reviewers for the 30th Annual Symposium. They took the time to review each paper and provide their individual summary and commentary. Their work is integral to this issue of the SCVS Newsletter. On behalf of all those who will benefit from these reviews - THANK YOU!

Ruth L. Bush, MD
Neal S. Cayne, MD
Mark L. Friedell, M.D.
Michael L. Gelfand, MD
Steven M. Hertz, MD
Charles Klieman, MD
Evan Lipsitz, MD
Peter Lin, MD

Robert B. McLafferty, MD
Manish Mehta, MD
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Recent vascular meetings have focused on the techniques, equipment and results of interventional vascular surgery. This is in sharp contrast to previous meetings that mostly discussed open surgical statistics and procedures. Vas-

cular surgeons are progressively learning interventional methods and implementing them at medical centers nationwide. Concurrently, the medical device manufacturers have responded to the growing enthusiasm for the minimally invasive method by developing multiple products to solve the approach, delivery and removal of interventional systems. Presently, there is a lineup of new vascular devices at the FDA waiting approval and patents are issued almost daily relevant to vascular surgery. Once a product completes the obstacle course of design, prototyping, testing, patenting and regulation it then has to prove that it is cost effective and of sufficient improvement in order for it to get into a hospital. The queue is long to get a new device accepted and even with a "great" idea, many new devices don't make it.

Hospitals are reluctant to purchase new products that are expensive. And it takes a champion for a specific product to get it bought. For example, aortic stent grafts can cost \$8000 a piece. The hospital won't stock various sizes, at this price. And the manufacturer will supply only one per patient as is specifically ordered for that case. The manufacturers must be super confident in their quality control that there are no defective parts in the device and that it will work as advertised. Also, how to get a product into a hospital via or around group purchasing organizations is another topic in itself. But our congratulations to those who have made it. It takes persistence, dedication, vision and lots of money.

Some of those technologies that caught our attention include stent-grafts, 3D software, Vectra grafts, EVI endarterectomy device, U-clips and tissue adhesives. Some of them are ancillary technologies to assist in the delivery of aortic stent grafts. Others are relative to other vascular procedures.

The concept of a stent graft is simple, but the tools to successfully pull it off are complicated. Practically, one needs a satisfactory O.R. table, angiographic equipment, Intravascular Ultrasound (IVUS) and 3D software. Besides the aortic grafts of Medtronic, Guidant and Cook, stent grafts for peripheral applications are being tested in centers outside the U.S. Atrium has developed the Advanta V12 PTFE stent graft system for peripheral applications that are being tested in Europe. It is a low profile catheter with a preloaded device for use in variety of lower and upper extremity applications. It appears to have promise in the longer iliac and superficial femoral artery stenosis.

Vascular Architects has developed the aSpire PTFE covered stent for peripheral applications and dialysis grafts. It has a unique open design configuration, and has shown promise in its initial implants. It might prove as successful as the Slinky.

Endovascular Instruments, Inc. has developed a new technique for the treatment of occlusive disease of the superficial femoral artery. With the EVI instruments, a full length endarterectomy followed by the endoluminal placement of an ePTFE vascular graft can be completed through a single groin incision.

Medical Media Systems has developed the Preview Software system. What did we do before 3D software? This system takes a single contrast-enhanced CT scan and rebuilds the image of the aorta in 3D, possibly eliminating the need for an angiogram. By being able to rotate and measure the aorta, a logical treatment strategy can be developed and the correct sized prosthesis chosen. Vessel diameter, length and angle can be calculated and degree of calcification estimated. Once the prosthesis is chosen, a simulation can be made to show the end result. Endoleaks, volume analysis and other valuable data can be culled from these beautiful 3D images.

In the non stent-graft area, the new Vectra graft has been introduced in the past year as an immediate access graft for hemodialysis. The Vectra graft is made of Thoralon and permits puncturing for hemodialysis within 24 hours of implantation. Stick a needle in it, pull it out and the graft will not bleed. Its patency is comparable to traditional PTFE grafts and it is indicated for use when a fistula cannot be constructed and a dialysis catheter is not already in place. The only requirement is that it has to be put in precisely to avoid any kinking. The challenge of putting it in perfectly adds some fun to the procedure.

Another clever device we recently noted is the U-Clip Anastomotic Device. It comes in a number of sizes and is preloaded onto a suture. Pull the suture through and the U-Clip remains behind tying itself into a preformed interrupted knot. It may have advantages over "running" sutures and claims 100% patency by angiography at six months.

And just like the creative glue that puts all the pieces together to get a product to market, the new tissue glues are making our lives easier keeping bleeding sites controlled. The Fibrin Sealants that have come on the market this past year include Dermabond Glue and HemaSeal. They are of great help with annoying bleeding sites. Incidentally, they are also very useful for air leaks in the lungs after lung resections or decortications.

The minimally invasive approach to vascular disease is growing by geometric progression and I expect that it will account for the majority of treatments in the next five years. New teams of surgeons and interventionists are forming in hospitals to perform these procedures and to offer them to their communities. Traditional vascular techniques will remain the mainstay of our specialty for many years, but creative entrepreneurs are chipping away at the "tried and true" therapies. As computer-processing power doubles every 18 months, modernizing the traditional surgical approaches is finding its own time related geometric progression.

Once a product completes the obstacle course of design, prototyping, testing, patenting and regulation it then has to prove that it is cost effective and of sufficient improvement in order for it to get into a hospital.

Highlights of the SCVS ANNUAL BUSINESS MEETING

March 14, 2002, Las Vegas, Nevada

President's Report

Dr. Ricotta welcomed the membership to the Annual Meeting and expressed his gratitude to the membership for electing him to serve as President. He introduced the European guests who were presenting at the International Symposium Developments in Vascular Surgery in Europe and stressed the importance of continued international exchanges and interchanges.

SCVS has joined VascularWeb and the membership should log on to www.vascularweb.org to learn more.

Dr. Ricotta encouraged each member to recruit one new member in the coming year. The SCVS wants to recruit practicing surgeons doing vascular work who are not necessarily members of other vascular societies. Members should contact the SCVS office with recommendations of potential members.

Dr. Ricotta will be the successor representative to the ACS Advisory Council for Vascular Surgery; Herbert Dardik, M.D. has completed his tenure.

Report of the Treasurer

Dr. O. William Brown reported that the SCVS remains in a positive cash position. On behalf of the SCVS, Dr. Brown also thanked this year's sponsors via unrestricted educational grants for the Annual Meeting. Sponsors included Abbott Pharmaceuticals, Astra Zeneca, Aventis Pharmaceuticals, Centocor, W.L. Gore & Associates, Hancock Jaffee Labs, Medtronic, Smith & Nephew, U.S. Surgical, and VNUS. Dr. Brown also extended gracious appreciation to The William J. von Liebig Foundation for its support.

Report of the Recorder

Dr. Joann M. Lohr reported to the membership that 23 abstracts were accepted for publication, 2 abstracts were under review, and 6 abstracts were rejected. SCVS will forward all manuscripts from the oral presentations of the 2002 Annual Meeting to the Journal of Vascular Surgery for consideration for publication in a future issue. Dr. Lohr also reported that The Journal of Vascular Surgery has a new manuscript mandate.



Committee Reports

The Proposed Amendments to the Constitution and Bylaws of the SCVS were approved.

The Program Committee reported that 140 abstracts were submitted to the Program Committee for consideration. Twenty-eight abstracts were accepted for oral presentations, plus 10 orals (case reports) in two breakfast sessions, and forty-three abstracts were accepted for poster presentations. The Karmody Poster Session will highlight all forty-three posters.

2002-2003 SCVS Officers were elected:

President	Enrico Ascher, M.D.
President-Elect	Kim Hodgson, M.D.
Vice President	Peter F. Lawrence, M.D.
Secretary	Keith D. Calligaro, M.D.
Treasurer	O. William Brown, M.D.
Recorder	Alan B. Lumsden, M.D.
Members-at-Large	Samuel R. Money, M.D. Kenneth J. Cherry, M.D. Anton N. Sidawy, M.D.

HIGHLIGHTS FROM THE EXECUTIVE COMMITTEE MEETINGS

1. Membership remains steady, with 642 active members, 21 honorary members, 1 inactive member, 218 senior members, and 91 candidate members for a total of 973, making SCVS the 2nd largest vascular society. A bylaw change will be submitted to change the age at which a member moves to senior status.
2. The American Association of Vascular Surgery has evolved from the former NA-ISCVS and redefined its role as the umbrella organization for the regional and national clinical societies in vascular surgery, providing a unified voice for vascular surgeons as they address critical educational and training issues, as well as our relationship with cardiologists, interventional radiologists and the American Board of Surgery. The SCVS supports this unified effort and has representation on the council of the AAVS.
3. Attendance at the annual meeting, while increasing each year, will need to increase even more, as we focus on CME and clinical education. The Executive Committee has taken several steps to increase the attractiveness of the meeting to practicing surgeons, including earlier identification and marketing of the CME part of the program, arranging for vascular fellows to be sponsored at the meeting, increasing industrial attendance at the meeting,



(continued on next page)

focusing on the recruitment of new members through regional, state, and local societies, placing the newsletter with the program on Vascular Web, and increasing the number of abstracts accepted for the poster session. The Society continues to believe that posters are a vital part of the meeting and will continue to support them through the oral presentations.

4. The Executive Committee has recommended that there be standardization of the slide and Powerpoint presentations and presenters will be requested to bring a powerpoint CD.

The following reimbursement policy for the SCVS Annual Symposium/Postgraduate Course is amended as follows:

- ♦ Invited faculty (non-members) shall be reimbursed for 21-day advance rate economy airfare; accommodations up to 2 nights, and waived registration fee.
- ♦ Invited member-faculty for the postgraduate course shall have his or her registration fee waived.

- ♦ The Distinguished International Professor shall receive up to \$5,000 to be used for airfare, miscellaneous travel expenses, accommodations and registration fee; no additional honoraria.

- ♦ International presenters receive up to \$2500 to be used for airfare, miscellaneous travel expenses, and accommodations. Registration fees shall be waived; no additional honoraria. The registration fee for presenting Residents shall be waived.

Awards and Special Lecturers:

- ♦ The Hume Lecturer shall receive an honorarium of \$1,000; reimbursement for 21-day advance rate economy airfare; accommodations up to 3 nights, and waived registration fee.

- ♦ The Peter Samuels Award (student/resident) winner shall receive an honorarium of \$1,000, reimbursement for 21-day advance rate economy airfare; accommodations for up to 3 nights and waived registration fee.

- ♦ The Allastair Karmody Prize (best poster presentations) winners shall receive honoraria of \$500 per group.

A Tribute.....

Harold Laufman, M.D., Ph.D.



Editor's Note:

The February issue of the SCVS newsletter included a tribute to Harold Laufman, M.D., Ph.D. The tribute contained several errors, including the incorrect name. We apologize to Dr. Laufman and are reprinting the correct article.

Most of us tend to forget the origins of our specialty, so it is appropriate from time to time to recall our roots. I had the honor of being invited to the 90th birthday celebration of Dr. Harold Laufman on January 5, 2002. More than a half-century ago Dr. Laufman was already establishing a part of the foundation for vascular surgery. He was performing major vascular operations and documenting them in the literature. Among his many achievements was the recognition of mesenteric vascular disease, the first physiological studies of hypothermia, physiology of intestinal strangulation obstruction, and the impact of infection in surgery. In 1955, Dr. Laufman founded the first blood vessel bank in Chicago, but then quickly moved into the use of nylon arterial grafts.

Dr. Laufman was a member of the Rush Medical College class of 1937 and, in fact, was named the 1993 Distinguished Alumnus by the college's Alumni Association. He completed his postgraduate training at Northwestern University Medical School, and was appointed to the faculty in 1940 when he started its first Vascular Surgery Service in 1951, and rose to the rank of full professor in 1962. Dr. Laufman assumed the position of Professor of Surgery at Albert Einstein College of Medicine in New York in 1965 and also founded and directed the Institute for Surgical Studies at Montefiore Medical Center. In the latter position he conducted extensive investigative research on the surgical environment, and in 1969 designed a proto-

type operating room used by the National Fire Protection Association, the Occupational Safety and Health Administration, the American Institute of Architects and the Lighting Engineering Society to establish codes and guidelines for the surgical environment of today.

Upon his retirement he founded the consulting firm HLA Systems -Harold Laufman Associates, Inc. Dr. Laufman has consulted for more than 250 hospitals in the United States and abroad in the planning, equipping and operation of their surgical and other healthcare facilities. He has served as editor, consulting editor and editorial board member of 8 surgical journals, and has authored more than 300 scientific articles, 12 textbook chapters, and 5 books. In 1973 he was awarded the Harold Swanberg Award of the American Medical Writer's Association "for distinguished contributions to biomedical communication."

As if this were not enough, Dr. Laufman became a student at the Chicago Art Institute while still in grammar school, and has continued an art career in which he produced watercolors, oils and pen-and-ink drawings that have been exhibited at many galleries. He has illustrated 11 medical textbooks and many scientific articles.

Finally, this Renaissance man has also established himself as a serious amateur violinist who still plays chamber music. He is a former chairman of the board of the New York Chamber Soloists and past-president of the Chamber Music Conference and Composers' Forum of the East at Bennington, VT. His performance of a Haydn trio with his daughters on the piano and cello at his 90th birthday celebration was masterful and memorable. Our congratulations to Dr. Harold Laufman from the entire vascular surgical community on the occasion of his 90th birthday landmark.



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