

Tissue handling, efficiency and flow of operation were rated significantly higher in the standardized group (mean range 88 to 96% vs mean range 67.6 to 77.6%; $p < 0.05$). The standardized group trended to better cognitive knowledge (mean 68.8% vs 59.4%; $p = 0.182$), creating a secure initial knot, following the curve of the needle through tissue, placing sutures accurately (70% vs 25%; $p = 0.08$) and securing the anastomosis at completion (100% vs 75%; $p = 0.183$). 72% of participant evaluations suggested preference for a standardized approach.

Conclusions: Standardization of teaching leads to greater competency and excellent trainee acceptance when performing a simulated vascular anastomosis. Transferability of simulator-acquired skills to actual clinical settings will be required before open simulation can be unequivocally recommended as a major component of resident technical skill training.

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PVSS13.

Acute Mesenteric Ischemia: A Comparison of Endovascular Revascularization to Traditional Therapy

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Objectives: Few centers have adopted endovascular therapy for the treatment of acute mesenteric ischemia. We sought to evaluate the impact of endovascular therapy on outcomes for the treatment of acute mesenteric ischemia (AMI).

Methods: A single center, retrospective cohort review was performed on all consecutive patients with thrombotic or embolic AMI presenting between 1999-2008. Patients with mesenteric venous thrombosis, non-occlusive mesenteric ischemia, and ischemia associated with aortic dissection were excluded. Demographic factors, preoperative metabolic status, and etiology were compared. Primary clinical outcomes included endovascular technical success, operative complications, and in-hospital mortality.

Results: Seventy consecutive patients were identified with AMI. Mean age was 64 (± 16) years; etiology of mesenteric ischemia was 65% thrombotic and 35% embolic occlusions. Endovascular revascularization was the preferred treatment (81%) vs operative therapy (19%). Successful endovascular treatment was achieved in 87%. Endovascular therapy required laparotomy in 69% vs traditional therapy 100% ($p < 0.05$) with a median 52cm necrotic bowel resected (Interquartile range (IQR): 11-140cm) vs

160cm (IQR: 90-250cm, $p < 0.05$), respectively. Acute renal failure and pulmonary failure occurred less frequently with endovascular therapy (27% vs 50%, $p < 0.05$ and 27% vs 70%, $p < 0.05$). Endovascular treatment resulted in a mortality rate of 39% compared to 53% ($p < 0.05$) with traditional therapy. Successful endovascular treatment equated to a mortality of 36%, whereas the mortality for endovascular failures was 50%. Endovascular therapy was associated with improved mortality in thrombotic AMI (Odds Ratio = 0.10, 95% Confidence Interval; 0.10-0.76, $p < 0.05$).

Conclusions: Endovascular therapy has altered the management of AMI, and there are measurable advantages to this approach. Utilizing endovascular therapy as the primary modality for AMI reduces complications and improves outcomes.

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PVSS17.

Routine Venography Following Transaxillary First Rib (FRRS) Resection for Subclavian Vein Thrombosis Ensures Excellent Outcomes and Vein Patency

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Objectives: The purpose of this study is to assess the role of routine postoperative venography in patients who have undergone FRRS for subclavian vein thrombosis by evaluating long-term vein patency using imaging by duplex scan.

Methods: Patients treated with FRRS undergo a venogram 2 weeks postoperatively. The subclavian vein is dilated if there is a $>50\%$ stenosis and those patients are then anticoagulated. If no stenosis is seen, anticoagulation is stopped. If the vein is occluded, anticoagulation is continued for 6 months or until the vein recanalizes.

Results: Eighty four patients (42 males and 42 females) underwent FRRS between 12/03 and 11/09. Forty-eight patients with stenotic veins underwent dilation; 4 had acute thrombus and were lysed as well as dilated and 3 thrombosed following the venogram and were anticoagulated. All patients remained on anticoagulation on average for 2 (1-5) months. Twenty-nine patients had patent veins and remained open in the follow-up period. Chronically occluded veins were seen in 16 patients. They remained on anticoagulation for an average of 3 (1-8) months and 14 patients recanalized following FRRS in the first 6 months. Percent patency by Kaplan Meier is seen in the graph. In follow-up, symptomatic restenosis was seen in 3 patients and those veins were redilated. Two patients had late occlusions at 2 years. These 5 patients were all in the dilated group.