

108S Abstracts

Conclusions: Lesion characteristics and patient factors can predict long-term patency after intervention. This comprehensive evaluation of over 1800 lesions provides a basis for development of a LSS to standardize lesion classification and allow for comparisons between centers based on lesion location, combinations of lesions, patient co-morbidities, and treatment modalities.

Table 1. Factors Predicting Loss of Patency

	Cox coefficient	HR (95% CI)	P-value	Score
Poor runoff	0.21	1.23 (1.06-1.44)	0.0079	1
Lesion Calcification	0.22	1.25 (1.07-1.45)	0.0043	1
CHF	0.28	1.32 (1.12-1.56)	0.0009	2
Diabetes	0.28	1.33 (1.13-1.56)	0.0005	2
High Grade Stenosis	0.31	1.36 (1.12-1.66)	0.0022	2
Lesion Length 100- 199mm	0.37	1.44 (1.19-1.76)	0.0002	2
Current Smoker	0.39	1.48 (1.19-1.84)	0.0004	3
Lesion Length >200 mm	0.43	1.54 (1.28-1.57)	<0.0001	3
Chronic Total Occlusion	0.44	1.55 (1.26-1.91)	<0.001	3

Factors evaluated but not achieving significance included age, sex, BMI, CRI, CAD, indication, stenosis<79%, and length<99mm.

Table 2. Patency Based on LSS

Lesion Severity Score	Patency at 12 months (95% CI)	Patency at 24 months (95% CI)	Patency at 36 months (95%CI)	Patency at 48 months (95%CI)
0-1	83% (73%-89%)	75% (64%-83%)	73% (62%-82%)	67% (53%-78%)
2-3	76% (69%-81%)	63% (56%-70%)	58% (49%-65%)	55% (45%-63%)
4-7	62% (58%-66%)	50% (46%-54%)	45% (41%-50%)	37% (31%-43%)
>7	50% (45%-55%)	32% (27%-37%)	23% (18%-29%)	16% (10%-23%)

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RR23.**Natural Course of Spontaneous Isolated Superior Mesenteric Artery Dissection: Follow-up Observation after Conservative Treatment**

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Objectives: To determine the natural course of spontaneous isolated superior mesenteric artery dissection (SISMAD).

Methods: Among 58 patients with SISMAD, 53 patients were treated by conservative management and 5 treated with intervention (stent 1, surgery 4). 39 patients treated by conservative management were followed up periodically using CT angiography in outpatient clinic. We classified SISMAD into three major categories according to the angiographic finding. We also investigated the angiographic change (progression of dissection, change of type, occlusion or remodeling, luminal patency) and clinical course (resolution and recurrence of pain).

Results: We found five (12.8%) cases of complete healing (remodeling) of SISMAD during the follow-up periods (mean 7.7 months, range 3.1-16 months). We also observed the decrease of dissection length in 10 (25.6%) and the extent of thrombosis in false lumen in 17 (43.6%). No change was found in 16 (41%). No patients had progression of their lesion on the follow-up CT angiography. The angiographic change of SISMAD was not associated with the symptom severity nor the use of anticoagulation therapy. During the clinical follow-up, 36 (92.3%) patients showed complete pain relief without recurrence of abdominal pain with conservative management.

Conclusions: After conservative management, we observed the morphologic change of SISMAD and benign clinical course. Based on this observation, patients with SISMAD could be treated conservatively.

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RR24.**Assessment of Anaerobic Threshold in Cardiopulmonary Exercise Testing as an Independent Predictor of Outcome in Patients Undergoing Abdominal Aortic Aneurysm (AAA) repair**

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Objectives: The aim of this study was to assess the role of anaerobic threshold (AT) in cardiopulmonary exercise testing (CPET) as an independent predictor of outcome in patients undergoing Abdominal aortic aneurysm (AAA) repair.

Methods: Analysis of a prospectively collected database of patients recruited in a randomised controlled trial for pre-operative risk assessments of elective AAA repair patients. Peri-operative parameters & outcomes were recorded for all patients. Primary end point was 30 day mortality. Intergroup analysis (alive vs. dead) was performed using SPSS 16.0.

Results: 30 patients [26 men, median age 75 years (IQR: 68-78)] were included in the study. Median Anaerobic threshold was 12.67 ml/min/kg (IQR: 8.6-16.42). Median hospital stay was 7 days (IQR: 5-12), post operative complications were observed in 10% (n=3) and mortality rate was 7% (n=2).

Inter-group Analysis: There was a significant difference (P=0.042) between the two groups in the AT [median AT, Alive: 12.76 ml/min/kg (range; 5.52-22.37), Dead: 6.67 ml/min/kg (range; 6.08-7.26)]. However, there was no statistically significant difference between the two groups for basic demographics, co-morbidities and pre-operative medications.

Conclusions: Anaerobic threshold in cardiopulmonary exercise testing may be used as an independent predictor of outcome in patients undergoing AAA repair. Further studies are required to establish its role as an independent predictor of morbidity & mortality in elective AAA patients.

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RR25.

Mechano-Chemical Endovenous Ablation in Great and Small Saphenous Vein Incompetence Using ClariVein TM: Initial Results of an Innovative Tumescenceless Technique

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Objectives: Most endovenous techniques for treatment of great saphenous vein incompetence use thermal energy, which requires instillation of tumescence anaesthesia and may lead to heat-related nerve damage. The innovative mechanochemical endovenous ablation (MECEA) of the great and small saphenous vein was recently developed to induces occlusion by endovenous mechanical damage combined with infusion of a liquid sclerosans. Initial results.

Methods: Prospective study of 110 consecutive patients, treated for 126 insufficient veins with MECEA using ClariVeinTM device (Vascular Insights, USA) and aetoxysklerol. Initial technical success (obliteration at post-procedural duplex scan), complications, patient satisfaction and visual analogue scale pain score (VAS) were assessed. Follow up included duplex scan of treated veins.

Inclusion criteria: 1. Venous incompetence of GSV, SSV or anterolateral side branches (ASB). 2. Vein diameter of 3 to 11mm. 3. Length of incompetence > 15 cm.

Results: From June to December 2010 126 legs were treated (107 GSV, 13 SSV, 6 ASB). The median length of treated veins was 37cm (16-52). Initial technical success of

MECEA was 100%. Median (VAS) pain score was 3 (0-10). No nerve damage occurred. The majority of patients already had 6 weeks follow-up duplex scan: 76 of 77 patients (98%) had obliteration of the treated vein. In one patient total recanalisation occurred, she had successful renewed MECEA. Four patients had 6 months duplex scans and all veins remained obliterated. No patients suffered from major complications; local hematoma at the puncture site was seen in 26% and superficial thrombophlebitis in 23%, resolving within a week.

Conclusions: Mechanochemical obliteration of long segment GSV, SSV and ASB incompetence is feasible with 100% initial technical success in this first large series. VAS scores are low and no tumescent anesthesia is necessary. Short-term follow-up is encouraging, and a Dutch registry has been started to gather longer-term follow-up.

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RR26.

The Impact of Ablation of Incompetent Veins on Ulcer Healing

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Objectives: We assessed the impact of endovenous ablation of incompetent veins on the healing rate of venous ulcers in patients who had failed conventional compression therapy.

Methods: Venous disease was CEAP classified. Patients with CEAP 6 ulcers were treated with weekly compression in a dedicated wound care center. Ulcer size and depth were tracked prospectively. Those ulcers that showed no measurable improvement after >5 weeks of compression therapy underwent ablation of at least one incompetent vein.

Results: We performed 140 consecutive endovenous ablation procedures (74 axial and 66 perforating) on 110 venous ulcers in 88 limbs. Ulcers had been present for 71±6 mo with an initial ulcer area of 23±6 cm². Following successful ablation, the healing rate for healed ulcers improved from +3.4±9.4%/mo to -75.5±26.3%/mo (p<0.001)(Fig 1). Healing rate by vein ablation location was: GSV=6.4cm²/mo, SSV=4.8cm²/mo, posterior tibial perforator veins=2.9cm²/mo. After a minimum observation period of 4.5 months (mean follow-up 11±1.25 mo), 84% of patients healed in 142±14 days. Twelve patients with 26 ulcers did not heal (Fig 2): 2 patients died from unrelated illnesses, 6 patients are still actively healing,