

1032-34 A New Percutaneous Vascular Surgical Device After PTCA and Stenting

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The femoral artery is the most common vessel access for interventional procedures. Local problems are frequent by using larger devices or strong anticoagulation protocols after stenting. Therefore we used the new single operator percutaneous vascular surgical device (Perclose) in a prospective trial. The new 9 F-device has a sheath which houses four sutured needles. The knots are made outside and are advanced by a special knot pusher to the artery surface.

A consecutive series of 350 patients (pts) was included. PTCA, atherectomy or stent deployment was done by use of 8 or 9 F guiding catheters. A successful stent implantation was carried out in 320 pts of this series. In these cases the surgical device was employed immediately after the interventional procedure and there was no need for a withdrawal of heparin. The patients had to stay in bed for only 4 hours with a mild compression bandage and were allowed to walk after this period.

The results were as follows: Procedural success 322/350 pts (92%), false aneurysm 0/322 pts, haemoma (over 5 cm) 0/322 pts, vessel thrombosis 0/322 pts. Compression of the artery (up to 1 hour) was done in the remaining 38 pts followed by a tight compression bandage (1 aneurysm). Before use of the new device our local complications were 1% false aneurysm or bleeding with surgical repair and 8% severe haematoma.

The new percutaneous vascular surgical device reduces local complications. Anticoagulation protocols can be administered unchanged and therefore the results of complex angioplasty can be optimized.

1032-35 The "Dark Side" of Overtly Aggressive Multidevice Atherectomy

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Adjunctive DCA following rotational atherectomy (RA) results in a larger lumen than stand-alone RA or RA+adjunctive PTCA. To assess the longterm effects of this strategy, we followed 183 pts treated with RA+adjunctive DCA and imaged using intravascular ultrasound. Pre- and post-intervention arterial, lumen, and plaque areas (mm²) were used to calculate plaque burden (plaque/arterial areas) and the contribution of tissue removal to lumen enlargement (atherectomy index = Δplaque/Δlumen areas). After 11.8 ± 4.5 mos, 38 pts (23%) required target lesion revascularization (TLR):

	No TLR	TLR	p
Pre-intervention arterial area	18.1 ± 5.3	18.7 ± 4.3	0.669
Lumen area	1.9 ± 1.0	1.7 ± 0.9	0.522
Plaque area	16.2 ± 5.1	17.0 ± 4.4	0.491
Post-intervention arterial area	20.7 ± 5.9	19.6 ± 5.1	0.377
Lumen area	6.8 ± 2.1	6.0 ± 1.6	0.049
Plaque area	13.8 ± 4.9	13.7 ± 4.6	0.902
Plaque burden (%)	66 ± 8.7	69 ± 8.0	0.103
Atherectomy index (%)	59 ± 25	84 ± 47	0.003

Reference lumen area and total and superficial arcs of lesion calcium were similar. Although post-intervention lumens were slightly smaller (6.0 vs 6.8 mm²), the atherectomy index was strikingly greater (84 vs 59%) in pts requiring TLR. We conclude that the strategy of RA+DCA results in favorable longterm pt outcomes (TLR = 23%). However, pts requiring TLR had more aggressive tissue removal (higher atherectomy index) suggesting that exaggerated deep vessel wall injury may be deleterious.

1032-36 Reduced Anticoagulation Protocol for Stenting (RAPS) in Smaller Coronary Vessels Using Intravascular Ultrasound Guidance. 30 Day Procedural Results

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Although coronary stenting (S) of smaller < 3 mm vessels (SCV) was initially identified as a risk factor for stent thrombosis, STRESS enrolled a significant number of SCV with acceptable results. We report the initial 30 day results of RAPS in SCV. 43 patients with 57 lesions in 2.5-3.0 mm native coronary vessels underwent stenting using 79 Palmaz-Schatz coronary stents. Lesion indications were 51 (89.5%) de novo elective, 1 (1.8%) restenotic, and 5 (8.7%) suboptimal results or threatened closures following balloon angioplasty or atherectomy. Clinical presentation was 23 (53.4%) unstable angina, 14 (32.6%) stable angina, and 6 (14.0%) < 72 hours S/P MI. Follow-

ing intravascular ultrasound (IVUS), final stent deployment was performed at 16.08 ± 0.62 atmospheres. All stents had a final cross-sectional area (CSA) ≥ 80% of reference vessel CSA, and were treated with aspirin 325 mg and ticlopidine 300 mg daily for one month, and enoxaparin 60 mg daily for three weeks. *IVUS Results*

Reference Vessel CSA mm	6.65 ± 0.31
Reference Vessel MLD mm	2.5 ± 0.07
Vessel Major/Minor Axis Ratio	0.78 ± 0.02
Reference Stent CSA mm	7.56 ± 0.40
Reference Stent MLD mm	2.71 ± 0.09
Stent Minor/Major Axis	0.80 ± 0.02
Mean % CSA Stent Stenosis	-13.7 ± 0.04%
Mean % MLD Stent Stenosis	-8.4 ± 0.03%

There were no RAPS procedural complications of death, MI, or emergency CABG. There were no significant bleeding complications requiring blood transfusion. 1 patient developed a femoral pseudoaneurysm that resolved with compression. There were no stent acute or subacute thrombosis.

In conclusion: Coronary stenting of smaller vessels with intravascular ultrasound guidance for high pressure stent deployment can be performed safely with excellent one month procedural results using a reduced anticoagulation regimen.

1033 Myocarditis: Insights Into Cause and Treatment

Wednesday, March 27, 1996, 3:00 p.m.-5:00 p.m.
Orange County Convention Center, Hall E
Presentation Hour: 3:00 p.m.-4:00 p.m.

1033-69 Inhibition of Inducible Nitric Oxide Synthase Reduces Myocardial Injury in Autoimmune Myocarditis Rats

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We have previously demonstrated the expression of inducible Nitric Oxide Synthase (iNOS) and peroxynitrite in impaired myocardial cells along with increased nitrite formation and O²- radical production in autoimmune myocarditis rats, suggesting that NO modulates myocardial damage in this myocarditis. In the present study, we investigated whether aminoguanidine (AG), a selective inhibitor of iNOS, modulates the inflammatory disorder of myocarditis. Lewis rats were sensitized to develop myocarditis with an injection of porcine myosin. AG (400 mg/kg per day) was intraperitoneally administered to rats every day from the day prior to the first immunization with myosin. Hearts were removed for examination on day 21. Blood samples were simultaneously taken from the heart cavity. The severity of myocarditis was assessed by measuring the histopathologically affected % area and serum CK-MB levels. Serum NOx levels were also measured. Mean % area of inflammatory lesions and CK-MB levels were significantly decreased in the rats with myocarditis given AG.

	NOx(mM)	CK-MB(ng/ml)	Area(%)
Myosin + AG (n = 10)	25 ± 9*	16 ± 9*	3 ± 2**
Myosin control (n = 10)	78 ± 12	102 ± 16	58 ± 13

*P < 0.01, **P < 0.001

Conclusions: AG inhibits the extension of myocardial injury in myocarditis by suppressing NO overproduction. AG may be an effective drug for the treatment of myocarditis.

1033-70 Clinical Significance of Myocardial Inflammatory Cell Infiltration in the Subacute Phase of Myocarditis

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The inflammatory cell infiltration in the subacute phase of acute myocarditis might deteriorate the recovery of left ventricular (LV) function through factors such as cytokines. To elucidate whether myocardial inflammatory cells infiltration in the subacute phase of myocarditis influences the prognosis of left ventricular function, we studied 16 pts with acute myocarditis diagnosed clinically. Endomyocardial biopsy specimens (3-4 pieces) were taken from