

Comparison of Antiplatelet Regimens After Endovascular Revascularization of Infringuinal Peripheral Artery Disease: Insights from The XLPAD Registry



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Background

In patients with symptomatic peripheral artery disease (PAD), antiplatelet therapy after endovascular revascularization shows favorable clinical outcomes. However, the optimal antiplatelet therapy regimen after endovascular revascularization of infringuinal arteries remains uncertain, and evidence demonstrating the benefit of dual-antiplatelet therapy (DAPT) over antiplatelet monotherapy in this population is limited.

Methods

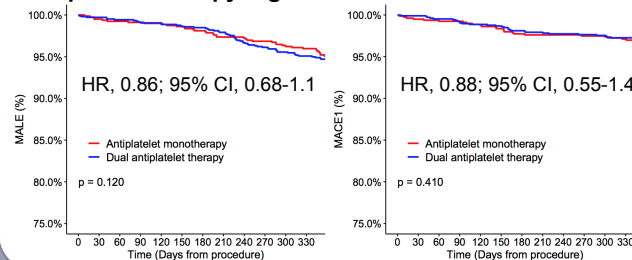
- Using the ongoing multicenter Excellence in Peripheral Artery Disease (XLPAD) registry (NCT01904851), we analyzed antiplatelet prescription trends and outcomes of 2412 patients undergoing endovascular revascularization to compare patients who were prescribed antiplatelet monotherapy to those who were prescribed DAPT for 6-12 months.
- Clinical and procedural records were entered and reviewed via the Research Electronic Data Capture (REDCap) online software.
- Patients who were treated with any form of anticoagulation were excluded from analysis.
- Follow-up occurred over a 12 month period after the index procedure.
- The primary outcomes assessed were major adverse limb events (MALEs; a composite of death, repeat endovascular revascularization, surgical revascularization, and target limb amputation), major adverse cardiovascular events (MACEs; a composite of death, myocardial infarction (MI), and stroke), and major bleeding.
- Multivariable Cox proportional hazard model analysis was performed to determine the association between DAPT and outcomes of interest adjusted for age, sex, cardiovascular risk factors, and critical limb ischemia.

Results

Antiplatelet Therapy Regimens			
Dual Antiplatelet Therapy (n=1151)		Antiplatelet Monotherapy (n=901)	
Aspirin + Ticagrelor	35 (3.0%)	Ticagrelor	1 (0.1%)
Aspirin + Prasugrel	38 (3.3%)	Prasugrel	4 (0.4%)
Aspirin + Clopidogrel	1078 (93.7%)	Clopidogrel	116 (12.9%)
		Aspirin	780 (86.6%)

Baseline Characteristics			
	Dual Antiplatelet Therapy	Antiplatelet Monotherapy	p Value
Age	66.6 ± 9.9	66.2 ± 10.1	0.321
Male Gender	793 (68.9%)	690 (76.6%)	<0.001
Current Smoking	464 (40.3%)	442 (49.1%)	<0.001
Hypertension	1049 (91.1%)	791 (87.8%)	0.007
Diabetes	623 (54.1%)	503 (55.8%)	0.456
Hyperlipidemia	954 (82.9%)	741 (82.2%)	0.448
Coronary Artery Disease	738 (64.1%)	439 (48.7%)	<0.001
Prior MI	299 (26.0%)	152 (16.9%)	<0.001
Prior Stroke	73 (6.3%)	75 (8.3%)	0.102
CLI	397 (34.5%)	291 (32.3%)	0.146

Figure 1. 12-month clinical outcomes after endovascular revascularization on the basis of different antiplatelet therapy regimens



12-Month Clinical Outcomes			
	Dual Antiplatelet Therapy	Antiplatelet Monotherapy	p Value
MALE	147 (12.8%)	133 (14.7%)	0.100
MACE	41 (3.6%)	37 (4.1%)	0.474
Major Bleeding	24 (2.1%)	9 (1.0%)	0.143

- The adjusted hazard ratio for major bleeding events in the DAPT group compared with the antiplatelet monotherapy group was 2.41 (95% CI, 0.89-6.52, p=0.08)

Conclusions

- After infringuinal endovascular revascularization, patients with underlying CAD were more likely to be prescribed DAPT as opposed to antiplatelet monotherapy.
- Adverse limb and cardiovascular events were similar in patients treated with DAPT and antiplatelet monotherapy.
- Major bleeding events were infrequent, with no trend towards harm in the DAPT group.

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