

Comparative Outcomes of Peripheral Vascular Interventions in Patients with Atrial Fibrillation Discharged on Anticoagulation in Combination with Aspirin or P2Y12 Inhibitors

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Objectives:

- Atrial fibrillation (AF) affects 15% of patients undergoing peripheral vascular interventions (PVI) and frequently requires anticoagulation (AC).
- Recent guidelines suggested **adding a single antiplatelet therapy to AC for patients with AF** after PVI without specifying the type of antiplatelet therapy.
- This study compares the addition of aspirin or P2Y12 inhibitors (P2Y12i) to AC after PVI in patient with AF.

Methods:

- The Vascular Quality initiative (VQI) PVI files were reviewed.
- Only patients undergoing PVI with AF were included.
- The characteristics and outcomes of patients discharged on AC+Aspirin were compared to those discharged on AC+P2Y12i.

Results:

- Kaplan-Meier curves** for mortality, reintervention, amputation, and major adverse limb event (MALE)-free survival demonstrated **no significant difference between both groups**.
- Cox regression** demonstrated that prior LER was associated with increased hazards of MALE (HR=1.15[1.02-1.30]), whereas prior PCI was associated with mortality (HR=1.12[1.02-1.22]) but **antithrombotic regimens were not associated with outcomes**.

In patients with AF undergoing PVI, the addition of aspirin or P2Y12i to AC at discharge did not affect outcomes.

The findings of this study provide a significant opportunity for economic savings as the cost of P2Y12i is more than 100-fold that of aspirin.

Characteristics	Anticoagulant + Aspirin N = 3,936 (49%)	Anticoagulant + P2Y12 inhibitor N = 4,023 (51%)	p-value ²
Prior Procedures			
Prior LER	1,161 (29%)	1,380 (34%)	<0.001
Prior PCI	903 (24%)	1,193 (31%)	<0.001
Procedural Characteristics			
Indication (CLTI)	2,382 (72%)	2,428 (71%)	0.4
Type of the procedure (Stenting)	1351 (34%)	1840 (46%)	<0.001
Level of the procedure			<0.001
Aortoiliac	736 (19%)	582 (15%)	
Femoropopliteal	1,286 (33%)	1,446 (36%)	
Tibial	860 (22%)	688 (17%)	
Multilevel	1,030 (26%)	1,294 (32%)	
Periprocedural outcomes			
Technical success	3,422 (90%)	3,637 (93%)	<0.001
Target lesion dissection	78 (2.0%)	149 (3.7%)	<0.001
Discharge status: home	3,040 (77%)	3,253 (81%)	<0.001

