Title

Racial Disparity in Perioperative Aspirin Utilization Impacts Survival of Black Patients Undergoing Lower Extremity Bypass Surgery

Journal

Journal of Vascular Surgery, 79(6)

ISSN

0741-5214

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Publication Date

2024-06-01

DOI

10.1016/j.jvs.2024.03.420

Peer reviewed

Table II. Salvage strategies and returned devices

Salvage Strategy	Total N = 238	Gore CTAG n = 8	Cook Zenith TX2 n = 167	Medtronic Valiant Captivia n = 63
Snared/recaptured component	3 (1.3%)	3 (37.5%)	0 (0.0%)	0 (0.0%)
Requiring excessive force	17 (7.1%)	2 (25.0%)	13 (7.8%)	2 (3.2%)
Covered lost component with second stent	1 (0.4%)	1 (12.5%)	0 (0.0%)	0 (0.0%)
Replaced with same device	35 (14.7%)	1 (12.5%)	18 (10.8%)	16 (25.4%)
Replaced with same brand, different size	28 (11.8%)	0 (0.0%)	23 (13.8%)	5 (7.9%)
Replaced with different device brand	47 (19.7%)	0 (0.0%)	35 (21.0%)	12 (19.0%)
Aborted	36 (15.1%)	1 (12.5%)	26 (15.6%)	9 (14.3%)
Unknown	71 (29.8%)	0 (0.0%)	52 (31.1%)	19 (30.2%)
Devices returned				
Yes	29 (12.2%)	5 (62.5%)	23 (12.8%)	1 (0.6%)
No	209 (87.8%)	3 (37.5%)	144 (86.2%)	62 (98.4%)

Levene's test *P*-value is .128.

Conclusions: There is a scarcity of published research regarding the types of manufacturer- related intraoperative device malfunctions occurring in real world practice. When such malfunctions occur, there seems to be a lack of communication between practitioners and manufacturers. Our data indicates that few devices are ever returned to the manufacturer for evaluation. Since MAUDE relies on manufacturer self-reporting, further investigation is needed to evaluate such malfunctions. It would be interesting to determine what malfunctions are reported to the Vascular Quality Initiative (VQI) database. Such research could foster development of salvage strategies, failsafe technologies, and bailout maneuvers through the collaboration of manufacturers and surgeons.

Author Disclosures: G. A. Acosta: Nothing to Disclose; **B. Beeman:** Nothing to Disclose; **S. Chao:** Nothing to Disclose; **T. Magliochetti Cammarata:** Nothing to Disclose.

PC204

Racial Disparity in Perioperative Aspirin Utilization Impacts Survival of Black Patients Undergoing Lower Extremity Bypass Surgery

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Objectives: Aspirin is known to be protective against major adverse cardiovascular events in peripheral arterial disease patients, both before and after undergoing lower extremity bypass (LEB). Racial and ethnic disparities in LEB outcomes do exist in the literature; however, little is mentioned regarding racial differences in perioperative aspirin utilization in this cohort. We aim to investigate the existence and possible impact of racial and ethnic disparities in perioperative aspirin usage in patients undergoing LEB.

Methods: All patients undergoing LEB for claudication or critical limb-threatening ischemia (CLTI) between January 2012 and October 2023 were identified in the Vascular Quality Initiative database. Patients were stratified into three ethno-racial groups: non- Hispanic White (NHW), non-Hispanic Black (NHB), and Hispanic. Patients not receiving aspirin due to medical contraindications or noncompliance were excluded. ANOVA and $\chi 2$ tests analyzed differences for baseline characteristics. Logistic regression analysis assessed differences in preoperative aspirin usage. Cox regression analysis analyzed 1-year mortality, and backward stepwise selection was implemented to identify significant variables for inclusion in the final models. A sub-analysis was performed to assess the impact of aspirin prescribed on discharge on 1-year survival.

Results: A total of 47,139 patients were included (NHW: 35,789; 75.9%; NHB: 8794; 18.7%; Hispanic: 2556; 5.4%). NHW patients were more likely

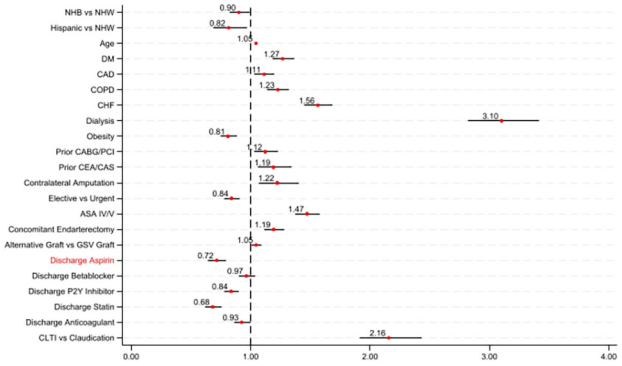

Fig. Forest Plot showing predictors of 1-year mortality of NHB and Hispanic patients undergoing lower extremity bypass (with reference to NHW patients). *CABG*, coronary artery bypass graft; *CAD*, coronary artery disease; *CEA*, carotid endarterectomy; *CHF*, congestive heart failure; *CLTI*, chronic limb-threatening ischemia; *COPD*, chronic obstructive pulmonary disease; *DM*, diabetes mellitus; *GSV*, great saphenous vein; *PCI*, percutaneous coronary intervention. x-axis: hazard ratios.

Table. Utilization of aspirin and 1-year mortality in LEB patients stratified by race and ethnicity

	OR/HR (95% CI)	*P* value
NHB vs NHW		
Preoperative aspirin	0.89 (0.81-0.98)	**.013**
One-year mortality (overall)	0.91 (0.82-1.00)	**.041**
One-year mortality (Both NHW and NHB receive DC-ASA)	0.88 (0.80-0.98)	**.016**
One-year mortality (Only NHW (but not NHB) receive DC-ASA)	1.24 (1.04-1.47)	**.017**
One-year mortality (Neither NHW nor NHB receive DC-ASA)	1.03 (0.84-1.26)	.770
Hispanic vs NHW		
Preoperative aspirin	0.87 (0.77-0.98)	**.021**
One-year mortality	0.81 (0.68-0.96)	**.016**
NHB vs Hispanic		
Preoperative aspirin	1.04 (0.91-1.18)	.589
One-year mortality	1.06 (0.90-1.26)	.484

CI, Confidence interval; *DC-ASA*, aspirin on discharge; *HR*, hazard ratio; *NHB*, non-Hispanic Black; *NHW*, non-Hispanic White; *OR*, odds ratio.

to be older and male. NHB and Hispanic patients were more likely to be hypertensive, diabetic, on dialysis, and presenting with CLTI. After adjusting for patient comorbidities and demographics, NHB and Hispanics were less likely to be receiving aspirin before undergoing LEB compared to NHW (OR, 0.89; 95% CI, 0.81-0.98 and OR, 0.87; 95% CI, 0.77-0.98; $P < .05$) (Table I). After excluding patients with contraindications to aspirin intake, NHB were also prescribed less aspirin on discharge compared to NHW (85.32% vs 86.63%; $P = .014$). Fig 1 shows discharge aspirin being an independent predictor of 1-year survival post-LEB. NHB and Hispanic patients had lower 1-year mortality after LEB compared to NHW (HR, 0.91; 95% CI, 0.82-1.00 and HR, 0.81; 95% CI, 0.68-0.96; $P < .05$]. However, results of the sub-analysis show that NHB not receiving aspirin on discharge have 24% higher risk of 1-year mortality compared to NHW (HR, 1.24; 95% CI, 1.04-1.47).

Conclusions: Racial disparities exist in perioperative aspirin utilization in patients undergoing LEB, where NHB patients are less likely to receive aspirin compared to NHW patients. Even though NHB patients have significantly lower risk of 1-year mortality after LEB, their survival advantage disappears if aspirin is not prescribed postoperatively.

Author Disclosures: A. Gaffey: Nothing to Disclose; **M. Hamouda:** Nothing to Disclose; **B. Jackson:** Nothing to Disclose; **M. Malas:** Nothing to Disclose; **W. Mehtsun:** Nothing to Disclose.

PC206

Predictors Of Myocardial Infarction Among Patients With No Prior History Of Coronary Artery Diseases Following Carotid Artery Revascularization

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Objectives: Postoperative myocardial infarction (MI) contributes to the overall mortality associated with carotid revascularization. Current guidelines regarding preoperative cardiac evaluation are limited to patients with a coronary artery disease (CAD) history. This study aimed to identify postoperative MI predictors in patients without a prior history of CAD undergoing carotid revascularization.

Methods: We performed a retrospective analysis of all patients undergoing carotid artery revascularization without a prior history of CAD in the VQI database from 2016-2023. Multivariable logistic regression was used to identify variables associated with postoperative MI following carotid endarterectomy (CEA), transcarotid artery revascularization (TCAR), and transfemoral carotid artery stenting (TFCAS). Hosmer-Lemeshow goodness-of-fit (GOF) and area under the ROC curve (AUC) were used to assess model fit and accuracy.

Results: The cohorts included 63,802 (0.40% with MI) CEA, 11,301 (0.35% with MI) TFCAS, and 17,941 (0.24% with MI) TCAR cases. In the CEA group, those with postoperative MI were more likely to be non-White, have diabetes, HTN, CKD, prior contralateral CEA/CAS, ipsilateral stenosis ≥80%, prior stroke, on dialysis, and former smokers compared to patients without MI. In the TFCAS group, patients with postoperative MI were more likely to be Hispanic/Latino, with history of stroke, CHF, ipsilateral stenosis ≥80%, undergoing urgent/emergent surgery, and under general

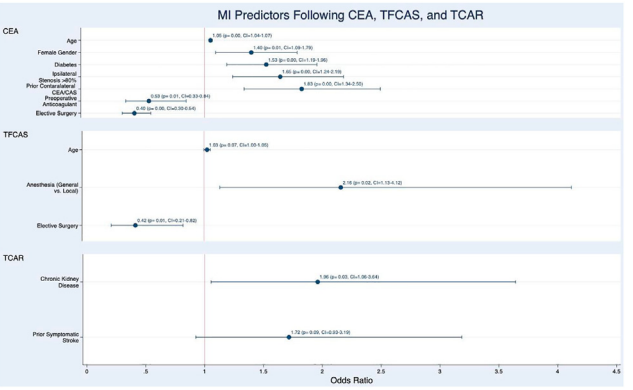

Fig. Odds ratios of in-hospital MI risk factors following CEA, TFCAS, and TCAR in patients without a prior history of CAD.

Table. Baseline characteristics of patients undergoing CEA, TFCAS, and TCAR with and without postoperative MI

	CEA			TFCAS			TCAR		
Patient characteristics	MI absent (n = 69,553)	MI present (n = 249)	*P*-value	MI absent (n = 11,261)	MI present (n = 40)	*P*-value	MI absent (n = 17,898)	MI present (n = 43)	*P*-value
Age, years	70.32 (9.53)	74.14 (7.43)	**< .001**	69.15 (10.19)	71.25 (8.43)	.194	73.12 (9.10)	75.12 (10.17)	.151
Gender									
Male	38,573 (55.46%)	117 (46.99%)	.027	6783 (60.23%)	20 (50.00%)	.187	10,248 (57.26%)	21 (48.84%)	.265
Female	30,978 (44.54%)	132 (53.01%)		4478 (39.77%)	20 (50.00%)		7650 (42.74%)	22 (51.16%)	
Race									
White race	61,656 (88.71%)	205 (82.33%)	**.001**	9875 (87.74%)	38 (95.00%)	.162	15,960 (89.25%)	35 (81.40%)	.097
Non-White race	7844 (11.29 %)	44 (17.67%)		1380 (12.26%)	2 (5.00%)		1923 (10.75%)	8 (18.60%)	
Ethnicity									
Hispanic or Latino	2218 (3.20%)	8 (3.21%)	.989	434 (3.86%)	4 (10.00%)	**.045**	783 (4.39%)	2 (4.76%)	.906
Symptomatic stenosis									
Amaurosis fugax	4896 (7.04%)	15 (6.02%)	.531	489 (4.34%)	1 (2.50%)	.568	779 (4.35%)	1 (2.33%)	.515
Transient ischemic attacks	5997 (8.62%)	29 (11.65%)	.090	1223 (10.86%)	4 (10.00%)	.861	1940 (10.84%)	5 (11.63%)	.868
Stroke	14,235 (20.47%)	67 (26.91%)	**.012**	3847 (34.16%)	20 (50.00%)	**.035**	3905 (21.82%)	14 (32.56%)	.089
Comorbidities									
Diabetes	21,649 (31.15%)	100 (40.16 %)	**.002**	3430 (30.50%)	11 (27.50%)	.681	5634 (31.48%)	17 (39.53%)	.256
HTN	59,931 (86.33%)	277 (91.16%)	**.026**	9295 (83.05%)	34 (87.18%)	.493	15,635 (87.41%)	41 (95.35%)	.117
CHF	3792 (5.46%)	20 (8.03%)	.074	651 (5.79%)	5 (12.50%)	**.070**	1112 (6.22%)	5 (11.63%)	.142

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