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Vascular Medicine

DIAGNOSTIC UTILITY OF CAROTID ARTERY ULTRASOUND FOR THE PRIMARY INDICATION OF SYNCOPE

Poster Contributions

Hall C

Sunday, March 30, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Vascular Medicine: A Potpourri

Abstract Category: 32. Vascular Medicine: Non Coronary Arterial Disease

Presentation Number: 1213-76

Authors: *Daniella Kadian-Dodov, Alex Papolos, Jeffrey Olin, Icahn School of Medicine at Mount Sinai, New York, NY, USA***Background:** Syncope refers to a transient loss of consciousness and postural tone. The etiology is often elusive, resulting in extensive diagnostic testing.**Methods:** The medical records and results of 495 carotid artery ultrasounds performed in an accredited vascular laboratory for the primary indication of syncope were reviewed to determine the diagnostic utility in identifying (1) a cause of syncope, and (2) new atherosclerotic or severe disease with the potential to change management.**Results:** Carotid artery ultrasound identified a plausible cause of syncope in 10 (2%) patients (pts): subclavian steal (3 pts), bilateral severe common or internal carotid artery (CCA or ICA) or vertebral artery (VA) stenosis (6 pts), or combined ICA/CCA and VA stenosis (1 pt). ICA stenosis of <60% was present in 93% of pts; 25% had normal ICA findings; 3% had ICA stenosis > 70%. The mean age was 70.8±13.1 years. A history of atherosclerosis was present in 57%, of which 16% had LDL > 100, 43% had LDL >70, and 20% were not on antiplatelet therapy. Carotid ultrasound identified new atherosclerosis in 34%, of which 20% had LDL > 100, 35% had LDL >70, and 58% were not on antiplatelet therapy.

	Known Atherosclerosis 280/495 (57%)	New Atherosclerosis 166/495 (34%)	p-value
Tobacco History, N (%)	85/280 (30)	51/166 (31)	0.246
N/A*	86/280 (31)	51/166 (31)	
Diabetes N (%)	118/280 (42)	38/166 (23)	<0.0001
Hypertension N (%)	257/280 (92)	125/166 (75)	<0.0001
Hyperlipidemia N (%)	227/280 (81)	80/166 (48)	< 0.0001
LDL N (%)			
< 70	88/280 (31)	24/166 (15)	
70-100	74/280 (27)	24/166 (15)	<0.0001
> 100	44/280 (16)	33/166 (20)	
N/A*	74/280 (26)	85/166 (50)	
Statin Therapy N (%)	82/280 (30)	107/166 (65)	< 0.0001
N/A*	3/280 (1)	3/166 (2)	
Antiplatelet Therapy N (%)	224/280 (80)	70/166 (42)	<0.0001
N/A*	3/280 (1)	3/166 (2)	---
Anticoagulation N (%)	31/280 (11)	17/166 (10)	0.52
Antiplatelet and Anticoagulation N (%)	6/280 (2)	0/166	0.038

*N/A indicates that information was not available in the subject's medical record.

Conclusions: Carotid artery ultrasound rarely identified a cause of syncope. However, findings may lead to change in management by identifying new atherosclerosis or severe disease warranting consideration of carotid revascularization, or optimizing medical therapy in pts with known atherosclerosis.