#14 ANATOMIC MANIFESTATION OF PERIPHERAL VASCULAR DIFFERS BY RACE: SOCIAL OR BIOLOGICAL?

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Objective: Disparities in vascular disease between races have been recognized, however, the underlying etiology - whether social or biological - is not yet defined. We hypothesized that the prevalence of abdominal aortic aneurysm (AAA) and extracranial carotid disease (ECD) is significantly higher in Whites compared with Blacks.

Methods: The admissions to a University Hospital and the vascular operations from January 1990 to December 2001 were analyzed using a vascular database and hospital admission statistics. Black and White patients with peripheral vascular disease (AAA, ECD and lower extremity ischemia) were tabulated.

Results: The total number of admissions to the hospital was 493,099 (295,505 Whites vs. 197,594 Blacks), with no changes in the White/Black ratio (1.5) over the 11-year period. Of the patients admitted to the vascular service (6,717), 5,716 (4,076 Whites and 1,640 Blacks) underwent surgery for AAA, significant ECD or lower extremity ischemia. The prevalence of AAA and carotid disease were 3.2- and 6.4-times higher, respectively, in Whites than among Blacks whereas lower extremity ischemia was 1.7-times more common among Blacks (Fig 1). By comparison, among Whites and Blacks, the proportion of patients with non-ruptured AAA (96.3 vs. 96.3) or asymptomatic ECD (58.1 vs 62.0, respectively, p=0.66) was not significantly different.

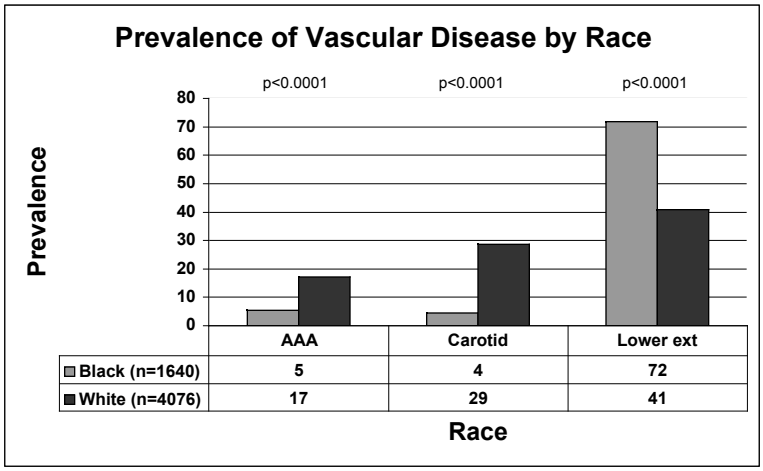

Fig. 1

Conclusions: Anatomic location of atherosclerotic vascular disease varies by race. There is a significantly higher prevalence of AAA and carotid disease in White patients. A lack of difference in the prevalence of asymptomatic disease favors the hypothesis that biological factors underlie the etiology for these differences.