Stent Thrombosis Occurs More Often in Black Patients

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Black patients who received drug-eluting stents were significantly more likely to develop stent thrombosis compared with nonblack patients, based on data from more than 7,000 adults.

To determine the incidence of early, late, and very late stent thrombosis (ST) in black patients compared with nonblack patients, Dr. Sara D. Collins and her colleagues at the Washington (D.C.) Hospital Center reviewed data from 7,236 adults who underwent percutaneous coronary intervention at a single hospital from April 2003 through December 2008.

The study included 1,594 black patients and 5,642 nonblack patients (Circulation 2010 Aug. 30; doi:10.1161/CIRCULATIONAHA.109.907908).

For all patients, the incidence of early ST at 30 days was 0.83%. The cumulative incidence of late ST was 0.24% per year between 30 days and 1 year, which rose to 0.36% per year between 1 and 2 years.

The rates of ST were more than twice as high in blacks vs. nonblacks across all time points.

At 30 days, the rate of ST in blacks vs. nonblacks was 1.71% vs. 0.59%. At 1 year, 2 years, and 3 years, the ST rates in blacks were 2.25%, 2.78%, and 3.67%, respectively. In nonblacks, the ST rates were 0.79%, 1.09%, and 1.48%, respectively.

In a multivariate analysis, black race was the strongest significant independent predictor of ST more than 30 days after PCI, and it was a significant predictor of early ST at 30 days.

Black race is an independent predictor of ST even when accounting for potential confounders such as socioeconomic status and comorbidities,” the researchers said.

Black patients were more likely than nonblack patients to be taking clopidogrel at the time of the ST (88% vs. 78%), but the difference was not significant.

In a univariate analysis, black patients were significantly more likely than nonblack patients to have a history of hypertension, chronic renal insufficiency, diabetes, and heart failure. Black patients were significantly younger than nonblack patients (average age, 63 years vs. 65 years), and the median household income was significantly lower for black patients, the researchers noted.

“The results support data from previous studies suggesting that black patients are more likely to experience ST, but this study is the first to control for variables typically associated with racial disparities in health care, the investigators noted.

“Because our analysis adjusts for traditional variables associated with racial disparities in health care, further mechanisms such as genetic polymorphisms and responsiveness to antiplatelet therapy must be pursued,” they said.