Survival Advantage of Black Dialysis Patients Limited to Older Adults

Compared to white patients, risk of death is lower for black dialysis patients over age 50 but higher for black patients in younger age groups, reports The Journal of the American Medical Association.

The researchers analyzed data on 1,330,007 patients with incident end-stage renal disease (ESRD) patients captured by the U.S. Renal Data System between 1995 and 2009. Multivariate age-stratified Cox proportional hazards and competing risk models were used to compare risk of death for black and white patients. Median potential follow-up was 6.7 years.

Overall mortality was lower in black patients than white patients: 57.1 percent versus 63.5 percent, adjusted hazard ratio (HR) 1.93. However, on age-stratified analysis treating kidney transplantation as a competing risk, mortality was higher for black patients in younger age groups. For those aged 18 to 30 years, mortality was 27.6 percent for black patients versus 14.2 percent for white patients: HR 1.93. This racial disparity remained significant from age 31 to 40 years, 37.4 percent versus 26.8 percent, HR 1.46; and from 41 to 50 years, 44.8 percent versus 38.0 percent, HR 1.12.

At age 51 to 60 years, the pattern reversed, with mortality of 50.9 percent for black patients and 51.5 percent for white patients: HR 0.93. This difference remained significant at older ages, with adjusted HRs of 0.87 from age 61 to 70, 0.85 from age 71 to 80, and 0.87 at age 80 and older.

Studies have consistently reported longer survival for black dialysis patients, compared to their white counterparts. The new study suggests that this survival advantage is limited to patients older than 50; in younger age groups, survival is lower for black patients than white patients. More study is needed to explore the reasons for the higher risk of death among young black patients on dialysis. [Kucirka LM, et al: Association of race and age with survival among patients undergoing dialysis. *JAMA* 2011; 171: 620–626].

No Increase in Birth Defects with First-Trimester ACE Inhibitors

Exposure to angiotensin-converting enzyme (ACE) inhibitors during the first trimester of pregnancy does not increase the risk of congenital malformations, reports the *British Medical Journal*.

The researchers analyzed data on 465,744 mother–infant pairs in the Kaiser Permanente Northern California region between 1995 and 2008. Linked clinical and pharmacy data were used to evaluate the relationship between maternal ACE inhibitor use during the first trimester and the risk of congenital malformations in live-born offspring.

The rate of ACE inhibitor use by pregnant women dropped sharply from 0.9/1000 in the first trimester to only 0.1/1000 in the second or third trimester. The prevalence of treatment with other antihypertensive agents was 2.4/1000 and 26.5/1000, respectively.

Women who used ACE inhibitors during the first trimester had a 3.9 percent rate of congenital heart defects in their offspring compared with 1.6 percent for women without hypertension or antihypertensive medication use. No significant association extisted after adjustment for age, ethnicity, parity, and obesity. The rate of congenital heart defects among infants born to mothers using other antihypertensive drugs was 2.6 percent—not significantly different from the 2.4 percent rate for women who had hypertension but did not take antihypertensive drugs.

The ACE inhibitors have well-recognized fetal toxic effects during the second or third trimester. Addressing concerns raised by recent studies, the new results show no significant increase in congenital malformations associated with first-trimester exposure to ACE inhibitors. Any apparent increase in risk likely reflects the effects of hypertension itself rather than of antihypertensive medications. [Li DK, et al. Maternal exposure to angiotensin converting enzyme inhibitors in the first trimester and risk of malformations in offspring: a retrospective cohort study. *BMJ* 2011; 343:d5931.]

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