

Donor race may impact recurrent hepatitis C in liver transplant patients

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The race of liver donors may affect recurrent hepatitis C in patients after liver transplant, according to a study by Henry Ford Hospital.

"Patients receiving white cadaveric donor grafts had significantly more aggressive recurrent [hepatitis C](#) than those receiving grafts from African-American donors regardless of recipient race," says Matthew Moeller, M.D., gastroenterology fellow at Henry Ford Hospital and lead author of the study.

"This difference was especially marked in African-American recipients and persisted on multivariate analysis."

The study will be presented Oct. 29 at the American Association for the Study of Liver Diseases annual meeting in Boston.

Of patients transplanted at Henry Ford Hospital between 2000 and 2006, 222 were infected with [hepatitis C](#). Of these, 165 were eligible to be evaluated for recurrent hepatitis C after transplant. The study excluded those with patient and graft loss within one year not related to recurrent hepatitis C, patients with advanced fibrosis from other causes, those who did not undergo post-transplant [liver biopsy](#) and those lost to follow-up.

Patients were given a recurrent HCV score of 1, 2 or 3. A score of 1 was assigned if the patient had no more than mild portal fibrosis at year one and no bridging fibrosis at any point. A score of 2 was defined as moderate portal fibrosis or focal bridging fibrosis at one year or bridging

fibrosis or [cirrhosis](#) after three years. A score of 3 was defined as bridging fibrosis, cirrhosis, or graft loss from hepatitis C within three years. Analysis was performed using ordinal multivariate logistic regression modeling.

Results showed that of the 165 patients with a recurrent hepatitis score, 105 (64%) had a score of 1, 29 patients (18%) had a score of 2 and 31 patients (19%) had a score of 3. Of the recipients, 115 (70%) were white and 40 (24%) were African-American; 132 (80%) recipients had white donors and 26 (16%) had African-American donors.

The mean recurrent hepatitis score for the patient donor/recipient race combinations were:

- white donor/white recipient was 1.54,
- white donor/African-American recipient was 1.89,
- African-American donor/white recipient was 1.18, and
- African-American donor/African-American recipient was 1.23.

The study showed that having a white donor for a [liver transplant](#), especially in African American patients, was significantly associated with having a higher recurrent hepatitis C score.

Dr. Moeller explained that after adjusting for donor age and sex and patient age, gender, and sex, having a white donor was still associated with a higher recurrent hepatitis score on multivariable analysis. Using all 222 patients, donor race was not associated with overall patient and graft survival.

"The data suggests a graft from a white donor is potentially one more important variable in identifying patients at risk for more aggressive recurrent hepatitis after transplant and warrants further study," said Dr. Moeller.

According to the U.S. Department of Health & Human Services, more than 16,000 liver transplants were performed last year and according to the United Network for Organ Sharing (UNOS), there are currently almost 18,000 Americans on the liver transplant list.

Provided by Henry Ford Health System

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