COMMON VIRAL INFECTION IN KIDNEY TRANSPLANT RECIPIENTS INCREASES RISK OF DEVELOPING DONOR-SPECIFIC ANTIBODIES

Such antibodies may increase the risk of rejection

Highlights

• Among kidney transplant recipients, persistent infection with BK virus does not have a negative immediate-term impact on patient or kidney survival, but infected patients are more likely to develop antibodies against their kidney transplants.
• Such donor-specific antibodies are known to be detrimental to the survival of transplanted organs.

BK virus infection affects 10% to 30% of kidney transplant recipients.

Washington, DC (September 25, 2014) — Kidney transplant recipients infected with BK virus are more likely to develop antibodies against their kidney transplants than uninfected patients, according to a study appearing in an upcoming issue of the Journal of the American Society of Nephrology (JASN). Future treatment strategies should focus on simultaneously clearing BK infections while protecting against risks of transplant rejection.

Many people are infected with BK virus, and it rarely causes disease. However, for transplant recipients and others who take immunosuppressive drugs, it can be problematic. The most common approach to BK infection in transplant patients is to reduce their anti-rejection medications so that their immune systems can fight off the infection. This of course could compromise the health of their transplanted organ.

Deirdre Sawinski, MD (Perelman School of Medicine at the University of Pennsylvania) and her colleagues looked at the health of 785 kidney transplant recipients, 132 of whom who had persistent BK infections despite reducing their anti-rejection medications.

While there was no significant difference in terms of patient or kidney transplant survival after a median of 3 years, patients with BK infections were more likely to develop antibodies against their kidney transplants. Such donor-specific antibodies are known to be detrimental to the survival of transplanted organs.
“This study is the first to link 2 common complications of kidney transplantation, namely BK viremia and donor-specific antibodies,” said Dr. Sawinski. “However, we cannot comment on the exact mechanism by which BK viremia predisposes patients to the development of donor-specific antibodies.”

Study co-authors include Kimberly Forde, MD MSCE, Jennifer Trofe Clark, Pharm D, Priyanka Patel, BS, Beatriz Olivera BS, Simin Goral, MD, and Roy Bloom, MD.

Disclosures: The authors reported no financial disclosures.

The article, entitled “Persistent BK Viremia Does Not Increase Intermediate-Term Graft Loss But is Associated with De Novo Donor Specific Antibodies,” will appear online at http://jasn.asnjournals.org/ on September 25, 2014.

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