

Waiting to Treat Patients After Transplant Surgery Is The Way To Go

A new study, published in the Journal of the American Society of Nephrology (JASN), reveals that Cytomegalovirus (CMV), which is the most common virus to infect organ transplant patients, should not be treated immediately after surgery - and waiting until the patients reach a certain point of recovery is better than prophylactically treating every patient.

CMV is the most common infection among organ transplant patients. These patients are extremely sensitive to infections because their immune systems are weak due to the immunosuppressive medications the patients are prescribed prior to surgery. The risk of organ rejection, heart complications, and other infections comes with CMV.

In order to avoid CMV doctors use one of two methods:

- **Universal antiviral prophylaxis** - All patients receive antiviral medications for many months after they undergo surgery. These medications may include; valacyclovir, valganciclovir, and ganciclovir.
- **Pre-emptive therapy** - Doctors monitor the patients' recovery very closely using sensitive laboratory methods. Antiviral treatment is only given to patients who are experiencing significant viral counts, in order to avoid serious symptoms.

In order to determine which method of treatment is more effective, Tomas Reischig, MD, PhD from the Charles University Medical School and Teaching Hospital in Pilsen, Czech Republic and his team treated kidney transplant recipients who had CMV in their blood or received organs which had belonged to donors with CMV. The 55 patients either received 3 months of prophylaxis with valacyclovir or pre-emptive valganciclovir when the doctors found high counts of CMV.

Three years later, the researchers found:

- 6% of patients in the pre-emptive group and 9% receiving prophylaxis developed CMV.
- The Prophylaxis group was 2.5 times more likely to have moderate or severe scarring of the kidneys.
- The prophylaxis group also had much higher expression of genes prevalent in scarring of the kidneys.
- CMV prevalence in both groups was relatively the same. However, pre-emptive treatment resulted in a 4 year survival improvement among the transplanted organs, a difference of 92% to 74%.

The results of the study clearly demonstrated that pre-emptive valganciclovir therapy was much more effective in reducing the chance of kidney scarring and atrophy, as well as higher survival rates in the organs being transplanted.

Dr. Reischig concluded:

"In the view of short-term trial results, which favor CMV prophylaxis over pre-emptive strategy because of lower risk of acute rejection, we expected a translation of presumed benefit of prophylaxis to the long-term post-transplant period. In fact, we discovered that the opposite is true."

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