

Fixing common blood disorder would make kidney transplants more successful

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Correcting anemia, a red blood cell deficiency, can preserve kidney function in many kidney transplant recipients, according to a study appearing in an upcoming issue of the Journal of the American Society Nephrology (JASN). The results indicate that aggressively treating anemia may help save the kidneys—and possibly the lives—of many transplant recipients.

Anemia commonly arises in patients with [kidney](#) disease because the kidneys secrete most of the hormone erythropoietin that stimulates [red blood cell](#) production. [Anemia](#) is also a common complication of kidney transplantation, with a prevalence of 25% to 40% after the first year.

Gabriel Choukroun, MD, PhD (CHU Amiens in France) and his colleagues initiated the Correction of Anemia and PRogression of Renal Insufficiency in Transplant patients (CAPRIT) study to see if the drug epoetin beta (a synthetic form of erythropoietin) could help preserve [kidney function](#) in kidney transplant recipients with anemia. Specifically, the investigators tested whether completely correcting anemia (by normalizing levels of hemoglobin, a blood component that carries oxygen) is better than partially correcting anemia.

During the study, 63 kidney transplant recipients took epoetin beta so that their hemoglobin levels remained in the normal range of 13.0 to 15.0 g/dL, while 62 patients took epoetin beta so that their hemoglobin levels hovered at a lower concentration of 10.5 to 11.5 g/dL.

Among the major findings after patients were treated for two years:

- 4.8% of patients with completely corrected anemia developed kidney failure, compared with 21% of patients with partially corrected anemia.
- 94.6% of transplanted kidneys in patients with completely corrected anemia were functional, compared with 80% in patients with partially corrected anemia.
- Patients with completely corrected anemia experienced a significant improvement in quality of life at six and 12 months after starting therapy.

"This study shows that correction of anemia in [kidney transplant recipients](#) with anemia slows the progression of kidney failure and improves survival of transplanted kidneys," said Dr. Choukroun. Additional studies are needed to determine whether this also prolongs patients' lives.

More information: The article, entitled "Correction of Post-Kidney Transplant Anemia Reduces Progression of Allograft Nephropathy," will appear online on December 22, 2011, [doi: 10.1681/ASN.2011060546](https://doi.org/10.1681/ASN.2011060546)

Provided by American Society of Nephrology

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