Journal View

Tacrolimus Shows Benefits in Class V Lupus Nephritis

Treatment with the immunosuppressive drug tacrolimus hastens recovery in systemic lupus erythematosus (SLE) patients with pure membranous (class V) nephropathy, according to a preliminary study in the New England Journal of Medicine.

C.-C. Szeto, MD, and colleagues of the Chinese University of Hong Kong performed an open-label study in 18 patients with SLE and biopsy-confirmed class V lupus nephritis. In addition to a tailing dose of prednisolone, all patients received tacrolimus, 0.1 to 0.2 mg/kg/dL. After 6 months, patients received maintenance therapy with prednisolone and azathioprine. Outcomes were compared with historical controls treated with cyclophosphamide or azathioprine.

By 12.5 months, proteinuria decreased by 76.2 percent in the tacrolimus group, compared to 47.1 percent in the historical control group. There were no major differences in remission rates; changes in renal function and SLE disease activity were similar between groups. Lupus flares occurred in 4 of 18 patients in the tacrolimus group versus 11 of 19 in the control group.

The results suggest that tacrolimus may offer a safe and effective alternative to conventional cytotoxic therapy for patients with pure membranous lupus nephropathy, including faster resolution of proteinuria and a lower risk of lupus flare. More study is needed to define the long-term benefit and optimal regimen of tacrolimus [Szeto C.-C., Kwan BC-H, Lai FM-M, Tam L-S, Li EK-M, Chow K-M, Gang W and Li PK-T. Tacrolimus for the treatment of systemic lupus erythematous with pure class V nephritis. Arthritis and Rheumatology 2008; 49:1678–1681].

No Difference in Kidney Transplant Outcomes for Black vs. White Canadians

In contrast to disparities in the outcomes of kidney transplantation for African-American versus white patients in the United States, black and white kidney recipients in Canada have similar outcomes, according to a study in the Journal of the American Society of Nephrology.

Led by Karen Yeates, MD, of Queens University, Kingston, Ont., Canada, the researchers assessed the outcomes of 5036 renal transplant recipients in Canada, identified from a national registry. The transplants occurred in a group of 20,243 dialysis patients, of whom 3 percent were black and 97 percent white. Blacks were 41 percent less likely to undergo transplantation than white patients. However, for transplant recipients, there was no racial difference in the risk of graft failure, after adjustment for comorbidity and socioeconomic status. Mortality after transplantation was 51 percent lower for blacks.

Why are the racial disparities observed in the United States not seen in Canada? Yeates speculates that black transplant recipients in Canada may have better access to post-transplant medical care, including immunosuppressive medications. While urging further study, the researchers write, “[O]ur results raise potentially important questions about whether better access to health services for African-Americans would improve outcomes following kidney transplantation in this population.” [Yeates K, Wiebe N, Gill J, Sima C, Schubel D, Holland D, Hemmelgarn B, and Tonelli M. Similar outcomes among black and white renal allograft recipients. J Am Soc Nephrol 2009; 172–179].

Lowering Blood Pressure Benefits the Very Elderly

For hypertensive patients 80 years and older, treatment to lower blood pressure yields significant reductions in stroke, heart failure, and death, reports a study in The New England Journal of Medicine.

The placebo-controlled Hypertension in the Very Elderly Trial (HYVET) included a worldwide sample of 3845 patients 80 or older with persistent hypertension—systolic blood pressure 160 mm Hg or higher. The active treatment group received sustained-release indapamide, 1.5 mg. Those who did not reach a blood pressure of 150/80 mm Hg were further randomized to receive perindopril, 2 or 4 mg, or placebo.

At a median of 1.8 years, blood pressure was about 15/6 mm Hg lower in the indapamide/perindopril group. Active treatment was associated with a 30 percent reduction in fatal or nonfatal stroke (the primary endpoint), including a 39 percent reduction in fatal stroke. Mortality from all causes was reduced by 21 percent, cardiovascular mortality by 23 percent, and heart failure risk by 64 percent. Patients assigned to active treatment actually had fewer serious adverse events than the placebo group.

It has been unclear whether blood pressure-lowering treatment is beneficial for patients 80 or older. However, the antihypertensive regimen evaluated in HYVET—sustained-release indapamide, plus perindopril if needed—leads to significant reductions in stroke and mortality. These benefits are achieved at a target blood pressure of 150/80 mm Hg, which was reached in nearly half of HYVET patients [Beckett NS, Peters R, Fletcher AE, Staessen JA, Liu L, Dumitranescu D, Stoyanovsky V, Antikainen RL, Nikitin Y, Anderson C, Belhanai A, Foret F, Rajkumar C, Thilo L, Banya W and Bulpiot CJ, for the HYVET Study Group: Treatment of hypertension in patients 80 years of age or older. N Engl J Med 2008; 358:1887–1898].

Hemoglobin Affects Quality of Life in CKD

For CKD patients, higher hemoglobin levels are associated with higher scores on measures of health-related quality of life, according to a report in the Clinical Journal of the American Society of Nephrology.

Led by Frederick O. Finkelstein, MD, of Yale University, the researchers looked at the relationship between hemoglobin and health-related quality of life in 1200 patients with stage 3 to 5 CKD. Patients with higher hemoglobin levels scored higher on a number of quality-of-life tests, including all physical domains of the Short Form-36 questionnaire.

On a kidney disease-specific assessment, general health score also increased with hemoglobin level. The biggest jumps in quality of life were noted at hemoglobin levels of 11 to 12 g/dL, compared to levels under 11 g/dL.

Health Literacy May Affect Transplantation Chances

Inadequate health literacy is common in ESRD patients and is linked to a lower rate of referral for transplant evaluation, reports a study in the Clinical Journal of the American Society of Nephrology.

Vanessa Grubbs, MD, and colleagues at the University of California, San Francisco, administered a brief test of functional health literacy to 100 black and white patients on maintenance hemodialysis. The results suggested an inadequate level of health literacy—the capability to obtain, process, and understand basic health information and services to make appropriate health decisions—in about one-third of patients. Older adults had lower literacy scores, as did less educated and less economically advantaged patients. On adjusted analysis, patients with inadequate health literacy were 78 percent less likely to be referred for transplantation. After referral, mean time to waitlisting was 6.6 months for patients with inadequate health literacy, compared with 2.1 months for those with adequate health literacy. “There was no significant difference in the likelihood of being waitlisted,” the authors write. “The results for the difference in referral rate are unknown, although nephrologists’ perceptions of the patient’s ability to keep up with posttransplant care could have an impact. Inadequate health literacy ‘may play a potentially important and modifiable role in equitable access to kidney transplantation,’” the investigators conclude [Grubbs V, Gregorich S, Perez-Stable S, and Hsu C-y. Health literacy and access to kidney transplantation. Clin J Am Soc Nephrol 2009; 4:195–200].

Eplerenone Doesn’t Lead to Hyperkalemia in AMI Patients with Heart Failure

In acute myocardial infarction (AMI) survivors with heart failure and left ventricular systolic dysfunction, selective aldosterone blockade with eplerenone reduces mortality while avoiding hyperkalemia, according to a trial reported in Circulation.

Eplerenone Post-Acute Myocardial Infarction Heart Failure Efficacy and Survival Study (EPHESUS) included 6632 post-AMI patients with congestive heart failure and a left ventricular ejection fraction of 40 percent or less. Patients received eplerenone, 25 to 50 mg/dL, or placebo in addition to standard therapy. The eplerenone group had a 4.4 percent absolute increase in risk of hyperkalemia (more than 5.5 mEq/L) and a 1.6 percent increase in more marked hyperkalemia (6.0 mEq/L or greater). The incidence of hypokalemia (less than 3.5 mEq/L) was decreased by 4.7 percent.

The EPHESUS investigators hope their report will alleviate fears that eplerenone may induce hyperkalemia in post-AMI patients with heart failure. They recommend adding eplerenone to standard treatment for post-AMI patients who also have heart failure, “as called for in current U.S. and European guidelines” [Pin B, Bakris G, Rialp LO, et al. DiCarlo L and Makheder J, on behalf of the EPHESUS Investigators: Serum potassium and clinical outcomes in the eplerenone post–acute myocardial infarction heart failure efficacy and survival study (EPHESUS). Circulation, 2008; 118:1643–1650].

For more information, visit the National Kidney Foundation at [http://www.kidney.org].

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