Kidney Recipients with Allograft Failure: An Important Opportunity for Collaborative Care and Improving Outcomes

Nephrologists from the American Society of Transplantation (AST) Kidney Pancreas Community of Practice (KPCOP) and the American Society of Nephrology (ASN) Quality Committee are partnering in consensus-building and educational efforts to improve the care of kidney patients after failed allograft—a vulnerable and growing group of kidney patients in need of more coordinated care. These efforts include formation of a cross-cutting “Kidney Recipients with Allograft Failure—Transition of Care (KRAFT)” workgroup.

Formed in 2018 by KPCOP Chair Darshana Dadhania, MD, the KRAFT workgroup seeks to address gaps in evidence and consensus for clinical care when kidney allograft function is declining and return to dialysis is inevitable. Under the leadership of Tasheek Alhamad, MD, and Jim Rice, MD, the workgroup developed an AST-approved survey distributed to transplant nephrologists and surgeons across the country to assess opinions and practices for managing immunosuppressive therapy in patients with failing transplants. Now the hope is for general nephrologists to add their input to the research project.

According to Krista Lentine, MD, PhD, FASN, ASN Quality Committee and KRAFT workgroup member, “The time period when care is being transitioned from transplant nephrologist to general nephrologist requires a coordinated effort to balance the risk of sensitization against the risks of infectious complications associated with maintenance immunosuppressive therapies.”

Notes Dadhania, “Often it is not clear who takes the primary responsibility for immunosuppressive management during this transition period when a patient is returning to dialysis following a failed allograft—transplant nephrologist or general nephrologist?”

Surveying general nephrologists regarding their knowledge, approaches, and attitudes toward immunosuppressive therapy in a patient with a failed kidney allograft will support urgently needed initiatives to coordinate care and improve patient outcomes. The goal of this survey segment of the project is to identify areas of both consensus and controversy, ground discussions of best practices, and focus evidence gathering to address knowledge gaps. The results will eventually be submitted for publication and used to guide consensus-building efforts.

Clinicians may participate through the web-based survey until September 1, 2019, at https://redcap.csc.weill.cornell.edu/redcap_protocols/survey/?s=NNYYY3A34N

Among the nearly 100,000 patients currently awaiting a kidney transplant, 30% are sensitized with a panel reactive antibody (PRA) value of >20%, and 12% of candidates have a previously failed allograft. The risk of high-level sensitization (PRA >80%) increases substantially over time after allograft failure, mainly attributable to weaning off immunosuppressive therapies (2). Indeed, prolonged treatment with immunosuppressive therapies following kidney graft failure can decrease the rate of sensitization by half (3).

In a survey of US transplant programs, however, the majority of responding centers stated that greater than 80% of patients are off all immunosuppressive therapies by one year post graft failure (4), driven by concerns for immunosuppression-related side effects such as infections. As sensitization status greatly affects the patient’s opportunity for re-transplantation and long-term survival (5), clarifying appropriate management after allograft failure to minimize complications while supporting opportunities for re-transplantation is a critical concern. In current practice, the period of allograft failure is associated with higher mortality than any other phase of kidney care (6). Many of these issues were highlighted in a presentation by Martha Pavlakis, MD, entitled “Managing the Failing Kidney Allograft” as a Timely Topics in Transplantation series sponsored by AST. At the present time, the only published guidelines on the topic of immunosuppressive management during this transition period were based on “very low” quality of evidence by the British Transplantation Society (7). To understand and help resolve these deficits, the community must work together to develop additional knowledge about current variations in practice protocols and the challenges associated with managing kidney recipients with allograft failure.

The management of patients after allograft failure will be discussed at an upcoming ASN Kidney Week symposium in November 2019.

Often it is not clear who takes the primary responsibility for immunosuppressive management during this transition period when a patient is returning to dialysis following a failed allograft—transplant nephrologist or general nephrologist?

References

Pneumococcal Vaccine Is Cost-Effective for Younger CKD Patients

Pneumococcal vaccination is a cost-effective intervention for adults with chronic kidney disease (CKD) under age 65, in the absence of other clinical indications, reports a study in the American Journal of Kidney Disease.

Using data from the National Health and Nutrition Examination Survey 1999 to 2004, the researchers estimated the prevalence of pneumococcal vaccination among patients with CKD, based on age and clinical indications. For patients aged 65 to 79 —for whom the vaccine is indicated by age —vaccination prevalence was 56.0%. For CKD patients aged 50 to 64, prevalence was 28.5% for those with clinical indications (such as diabetes, lung or heart disease, kidney failure, and nephrotic syndrome) and 9.7% for those without indications.

Forty-one percent of the younger CKD patients had clinical indications, most commonly lung disease. The prevalence of vaccination did not differ significantly by CKD risk status.

The cost of pneumococcal vaccination was higher and effectiveness was lower in older adults and in patients with higher CKD risk status. Based on a willingness-to-pay threshold of $100,000 per quality-adjusted life year (QALY), vaccination was cost-effective in CKD patients aged 50 to 64 ($38,000/QALY) and in those aged 65 to 79 ($15,000/QALY). In the younger group, incremental cost-effectiveness ratio increased from $1000/QALY for patients with kidney failure or nephritic-range albuminuria, to $17,000/QALY for CKD with high risk, to $25,000/QALY for CKD with moderate risk, to $43,000/QALY for those without CKD.

Sensitivity analysis suggested that vaccination for younger patients was cost-effective even at lower vaccine efficacy or 50% higher cost.