

Commentary

Usage of immunosuppressant medication by kidney transplant recipients and the assessment of living kidney donors

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ABOUT THE STUDY

The organ transplant of a kidney into a patient with end-stage kidney disease is known as a kidney transplant or renal transplant (ESRD). Depending on the source of the donor organ, kidney transplants are normally categorized as either deceased-donor or living-donor transplantations. Depending on whether the donor and the recipient are related biologically, living-donor kidney transplants can also be classified as genetically related or unrelated transplants.

A person with ESRD must go through a complete medical screening before obtaining a kidney transplant to ensure that they are in good enough health for the procedure. They may be added to a waiting list to get a kidney from a deceased donor if they are thought to be a good candidate. Once they are added to the waiting list, they may get a new kidney right away or they may have to wait for a very long time; in the US, the typical waiting period is between three and five years (Bay, et al., 1987). The replacement kidney is typically implanted during transplant surgery in the lower abdomen (belly); the patient's two native kidneys are typically left in situ unless there is a medical need to remove them. Compared to those with ESRD who are on dialysis, people with ESRD who receive a kidney transplant often live longer and may also enjoy a superior quality of life. To keep their bodies from rejecting the new kidney, kidney transplant recipients must take immunosuppressant for the rest of their lives. Due to their chronic immunosuppression, they are more susceptible to cancer and infections (Murray, et al., 1958). Cellular rejection or antibody-mediated rejection following a kidney transplant can both occur. Depending on how soon after the transplant it occurs, antibody-mediated rejection might be categorised as hyper acute, acute, or chronic. A kidney biopsy should be taken if rejection is thought to be a possibility. Serum creatinine and other labs should be measured frequently

to check on the functioning of the replacement kidney; this should occur at least once every three months for the rest of the patient's life. End-stage renal disease is a need for kidney transplantation, regardless of the underlying reason. Renal vascular disease, infections, diabetes mellitus, and autoimmune diseases including chronic glomerulonephritis and lupus are among the common disorders that cause ESRD (Murray, et al., 1976). Genetic factors include polycystic kidney disease and a multitude of inborn metabolic abnormalities. At the time of transplantation, the majority of kidney transplant recipients were receiving dialysis (peritoneal or hemodialysis). However, those who have chronic kidney disease and a living donor are eligible to have a preventative transplant before they require dialysis. This may potentially take place prior to dialysis if a patient is placed on the waiting list for a dead donor transplant early enough (Opelz et al., 1998).

Contraindications for kidney recipients

Hepatic illnesses, some malignancies, cardiac and pulmonary insufficiency, among other conditions, are contraindications to receiving a kidney transplant. Morbid obesity and concurrent tobacco use are two more factors that put a patient at an increased risk for surgical complications. Programs and nations have different standards for kidney transplants. Numerous programmes have age restrictions. Significant cardiovascular illness, terminally incurable infectious disorders, and cancer are frequently prohibited from receiving transplants (Reddy, et al., 1990). Additionally, applicants are often checked to see if they will take their meds consistently, which is crucial for the transplant to survive. People with serious continuing substance misuse problems and/or mental disorders may be excluded. Previously, transplantation was thought to be completely prohibited by HIV. Immunosuppressing someone with a weakened immune system raised concerns that the illness may advance as a result. However, other studies appear to indicate

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that immunosuppressive medications and antiretroviral may collaborate to lower HIV viral loads and CD4 cell numbers as well as avoid active rejection (Spital, et al.,1987).

Assessment of living kidney donors

Potential kidney donors are carefully assessed as candidates for a large elective surgery to ensure positive long-term outcomes. Both physical and psychological aspects of the screening are present. Occasionally, the process of successfully screening donors can take a few months, but it can also take longer, particularly if test findings show that extra testing are necessary (Spital, et al.,1987).To prevent lost possibilities for kidney transplant, transplant institutions should strive for unanimous approval times of fewer than six months. The psychosocial screening aims to identify the existence of any psychological issues that can make donation more difficult, such as a lack of social support for post-operative recovery, family coercion, or a lack of awareness of medical hazards. The medical examination evaluates the donor's overall health and surgical risk, looking for any diseases that would point to difficulties associated with having a single kidney (Sutherland, et al.,1991). Additionally, it evaluates the morphology of the donor's kidneys, taking into account size disparities and other complications that could make operation more difficult, as well as whether the donor and recipient have compatible immune systems. Although specific guidelines differ from transplant centre to transplant centre, important exclusion factors frequently include: diabetes, uncontrolled hypertension, morbid obesity, heart or lung illness, history of cancer, family history of renal disease, and decreased kidney function (Vollmer, et al., 1983).

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