

Maximizing the Success of Kidney Transplant: Importance of Post-Transplant Care and Patient Compliance

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Introduction

Kidney transplant is a surgical procedure where a healthy kidney from a donor is transplanted into a recipient who has end-stage kidney disease. This procedure is a life-saving option for those who are suffering from kidney failure and cannot be managed with other treatments. Kidney transplant is a complex process that involves a lot of preparation, careful selection of donors, and post-transplant care.

The need for kidney transplant arises when the kidneys are no longer able to filter waste products from the blood. This can be due to various reasons, including chronic kidney disease, diabetes, high blood pressure, and genetic disorders. When the kidneys fail, the patient needs to undergo dialysis, which is a process of removing waste products from the blood using a machine. However, dialysis is not a permanent solution, and it can only prolong the life of the patient for a certain period of time [1,2]. The best long-term solution for kidney failure is kidney transplant.

Description

The first successful kidney transplant was performed in 1954, and since then, this procedure has saved countless lives. In the United States, over 23,000 kidney transplants are performed each year, and the success rate of this procedure has steadily improved over the years. The success of kidney transplant depends on several factors, including the age and health of the recipient, the quality of the donor kidney, and the expertise of the surgical team.

Before the transplant procedure, the recipient needs to undergo a thorough evaluation to determine if they are a suitable candidate for the transplant. This evaluation involves several tests, including blood tests, urine tests, imaging tests, and psychological evaluations [3]. The donor also needs to undergo a similar evaluation to ensure that their kidney is healthy and compatible with the recipient.

The compatibility of the donor kidney is an essential factor in the success of the transplant. The human body has a complex system of proteins called human leukocyte antigens (HLAs), which are used to identify foreign substances, including transplanted organs. The closer the HLA match between the donor and recipient, the less likely the recipient's immune system will reject the transplanted kidney. If the HLA match is not close enough, the recipient may need to undergo additional treatments to prevent rejection, such as taking immunosuppressant medications.

The transplant surgery itself usually takes several hours, and the patient is

put under general anesthesia. The surgical team carefully removes the donor kidney and connects it to the recipient's blood vessels and bladder. After the surgery, the recipient needs to stay in the hospital for several days to monitor their condition and ensure that the transplanted kidney is functioning correctly [4].

The post-transplant period is crucial for the success of the transplant. The recipient needs to take immunosuppressant medications for the rest of their life to prevent rejection of the transplanted kidney. These medications suppress the immune system, which can increase the risk of infections and other complications. The recipient also needs to make lifestyle changes, such as eating a healthy diet, exercising regularly, and avoiding smoking and alcohol.

The success rate of kidney transplant has improved significantly over the years, and the five-year survival rate for kidney transplant recipients is around 80%. However, there are still some risks associated with this procedure, including rejection of the transplanted kidney, infections, and side effects of immunosuppressant medications. Kidney transplant is a life-saving option for those who are suffering from kidney failure. This complex procedure requires careful preparation, selection of donors, and post-transplant care to ensure the best possible outcome. The success of kidney transplant depends on several factors [2,5], including the compatibility of the donor kidney, the health of the recipient, and the expertise of the surgical team. While there are some risks associated with this procedure, the benefits of kidney transplant far outweigh the risks for those who are in need.

After receiving a kidney transplant, it is important for the patient to understand the post-transplant care process. Post-transplant care involves a series of steps that are designed to ensure the success of the transplant and the overall health of the patient. This article will discuss some of the key aspects of post-kidney transplant care:

Medication management

One of the most important aspects of post-kidney transplant care is medication management. Patients who have undergone kidney transplant surgery must take immunosuppressant medications for the rest of their lives to prevent rejection of the transplanted kidney. These medications work by suppressing the immune system, which reduces the body's ability to attack the new organ.

However, the immune system is also important for fighting infections and diseases, which means that transplant recipients must be careful to avoid exposure to germs and viruses. Patients must take their medications on a strict schedule and follow their doctor's instructions closely to ensure the success of the transplant [6].

Diet and exercise

Patients who have undergone kidney transplant surgery must also pay close attention to their diet and exercise routines. A healthy diet can help prevent complications such as high blood pressure, high cholesterol, and obesity, which can put additional strain on the new kidney. Patients should aim to eat a balanced diet that includes plenty of fruits, vegetables, whole grains, and lean protein.

Exercise is also important for maintaining a healthy weight and reducing the risk of complications. However, patients must be careful not to overdo it and should always check with their doctor before starting a new exercise routine.

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Monitoring and follow-up care

Following the transplant surgery, the patient will need to undergo regular check-ups and monitoring to ensure the kidney is functioning correctly and to detect any potential complications early on. These check-ups will typically involve blood and urine tests, as well as imaging studies such as ultrasounds or biopsies.

Patients will also need to attend regular follow-up appointments with their transplant team, which may include a transplant surgeon, transplant nephrologist, and transplant coordinator. These appointments will provide an opportunity for the patient to ask questions and address any concerns they may have.

Managing potential complications

Despite careful post-transplant care, patients may still experience complications after receiving a kidney transplant. Some common complications include:

If the patient experiences any symptoms such as fever, pain, swelling, or changes in urine output, they should contact their transplant team immediately.

- Rejection of the transplanted kidney
- Infection
- High blood pressure
- Diabetes
- Osteoporosis
- Cancer

Emotional support

Receiving a kidney transplant can be an emotional experience for patients and their families. Patients may feel a range of emotions, including gratitude, relief, anxiety, and fear. It is important for patients to have access to emotional support during the post-transplant period. Many transplant centers offer support groups, counseling services, and other resources to help patients cope with the emotional challenges of transplant surgery. Patients should also consider reaching out to friends and family members for support [7].

Post-kidney transplant care is an essential part of the transplant process. Patients who have undergone kidney transplant surgery must be diligent in managing their medications, following a healthy diet and exercise routine, attending regular check-ups and follow-up appointments, and seeking medical attention promptly if any complications arise. With careful post-transplant care and monitoring, transplant recipients can enjoy improved health and a better quality of life.

Conclusion

In conclusion, kidney transplant is a life-saving procedure for those suffering from kidney failure. Post-transplant care plays a vital role in ensuring the success of the transplant and the overall health of the patient. Patients must work closely with their transplant team to manage medications, follow a healthy lifestyle, and attend regular check-ups. While there are some risks associated with kidney transplant, the benefits outweigh the risks for those in need. With proper care and monitoring, kidney transplant recipients can look forward to improved health and a better quality of life.

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Conflict of Interest

There is no conflict of interest by author.

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