

## Recent Issues Faced by Organ Transplantation

Kazuo Kato\*

*Department of Psychiatry, Showa University School of Medicine, Tokyo, Japan*

### ABOUT THE STUDY

Organ transplantation is a medical procedure in which an organ is removed from the donor body and transplanted into the recipient body to replace a damaged or missing organ. Autografts are defined as organs and/or tissues that are transplanted within the body of the same person. Allografts are transplants carried out between two members of the same species.

Successful organ transplants have been performed on the heart, kidneys, liver, lungs, pancreas, intestine, thymus, and uterine. Tissues include skin, heart valves, nerves, and veins (both of which are referred to as musculoskeletal grafts). The most often transplanted organs globally are the kidneys, the liver, and lastly the heart. The most frequently transplanted tissues are musculoskeletal and corneal grafts, which outweigh organ transplants. All healthy individuals can donate their organs. Tissue is still retrievable from donors patients die from circulatory death as well as brain death up to 24 hours after their hearts have stopped beating. In comparison to organs, most tissues can be kept and retained for up to five years, or "banked," with the exception of corneas. Few of the bioethical concerns that are brought up by transplantation are reason of death, when and how consent should be granted for an organ to be transferred, and how the payment procedure need to be done for organ for transplantation. One of the most difficult and complicated fields of modern medicine is transplantation medicine. The issues of transplant rejection, in which the body reacts with immunity to the transplanted organ, which may result in transplant failure and the need to remove the organ from the recipient right away, are some of the major challenge faced by the organ transplantation. When possible, finding the best donor-recipient match and the use of immunosuppressant medications can prevent transplant rejection. Lungs are the most

difficult organ to transplant, as they are susceptible to infection in the later years of the donor's life. It can be damaged during removal or collapse from the donor after the surgeon has initiated post-transplant ventilation. The potential risk for transplantation are risk of transplanted organ rejection, increased risk of infection with immunosuppressants, all side effects of the immunosuppressants which can create a major after effects and can also leads to death of the recipient. Minor infections such as urinary tract infections (UTIs), colds, and flu are common after kidney transplantation. They may also contract more serious infections, such as pneumonia or cytomegalovirus (CMV), which may require hospital treatment. Organ transplantation involves major surgery, the use of immunosuppressants (including corticosteroids) which leads to other serious complications, including infection, transplant rejection, and death. One of the biggest problems for transplant patients and doctors is the shortage of donor organs. Demand for the organs are outstripping supply.

Patients are regularly dying while suffering from a national waiting list where a new name is added every ten minutes for the transplantation. Reactions to anesthetics (drugs that put the patients to sleep during surgery) and damage to other organs during surgery are few more challenges faced by the organ transplantation. Organ acute rejection occurs when the body's immune system treats and attacks the new organ like a foreign body. Drugs treat this by suppressing the immune system's response. Chronic rejection can become a long-term problem. Complicated conditions can make treatment of rejection more difficult for the patient and doctor. Organ transplantation has become an established life-saving treatment for patients with end-stage organ failure. However, patients still face limitations when it comes to transplant access and its efficacy. A major concern is the global shortage of organs for transplantation.

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**Correspondence to:** Kazuo Kato, Department of Psychiatry, Showa University School of Medicine, Tokyo, Japan, Email: [kazuokato@gmail.com](mailto:kazuokato@gmail.com)

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