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## Kidney Transplant Breakthrough in Israel

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A new innovative technique to transplant kidneys from live donors has come to Israel. The method is already being used in the U.S., Europe, Germany and Switzerland. An 18-year-old girl urgently needing a kidney transplant has undergone a transplant from a donor with a different blood type - her father.

Such transplants can be risky.

[Solomon Mahlab, Kidney donor]:

“If it doesn’t succeed; it pains me to donate a kidney and find out that eventually nothing became of it. I considered it will definitely succeed.”

A shortage in the number of donors compared with the number of people needing transplants is worsening in Israel. The reserve of kidneys for transplants is now mainly from live donors that heavily relies on matching blood types and antibodies.

[Alexander Yussim M.D., Director Research Unit]:

“Namely, these antibodies need to be eliminated, neutralized against various blood types and other antibodies as well. The easiest method is to switch between donors. A donor who doesn’t fit someone specific might fit someone else who is in need for a transplant.”

Neutralizing and eliminating antibodies can be done in many ways: medical substances can be used to eliminate cells producing antibodies, or antibodies from a patient’s serum can be eliminated by separating the blood serum from blood cells before returning fluids free of antibodies to the blood. Yet another method is dripping IVIG proteins that neutralize antibodies.

When the level of antibodies is permitted, the transplant can be performed, and there’s no rejection.

[Alexander Yussim M.D., Director Research Unit]

“We would like to establish a national level database of donors/receivers. For each pair of donors/receivers who don’t match, we switch donors. For those who can’t find a suitable donor, we neutralize the antibodies in their blood, and then perform the transplant.”

Ortal Mahlab is the first young person in Israel to receive a kidney transplant between two different blood types.

[Ortal Mahlab, Kidney Transplant Patient]:

“I needed an urgent transplant, so my father was compelled to donate me his kidney. They spoke with me, and told me that we are not the same blood type, and that it cannot work, and that we might die as a result. But they also told me that I should hope for the best. If I think positively and keep optimistic, the outcome will be good. Since the transplant, a month and a half has passed, and I feel great; there is no pain at all. I must stay at home for three months; otherwise my immunization levels might be harmed. Therefore, I must keep away from crowds.”

Even in such health, Ortal says she won't shy away from serving her country's army, if required. It is possible that in the future, such technological advancements will constitute the largest database of potential donors for transplants in Israel.

Janet Zrian, NTD News, Israel.

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