

The Telegraph

Patients with 'natural tolerance' to organ donations could help identify others

A rare group of patients who have developed a natural tolerance to donated kidneys could offer hope for other transplant patients.



By [Kate Devlin](#), Medical Correspondent 7:00AM BST 26 May 2010

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Most people who undergo such operations have to take immunosuppressant medication for the rest of their lives – to stop their body rejecting the new organ.

However, tests on 11 patients across Europe who have been able to give up the drugs could signal a new way of treating others.

Doctors believe that the rare group have developed immune systems with a tolerance to their new organs, and have now found similar chemicals in their blood which they believe could be a clue to identifying other similar patients

Our body's natural defences are built to attack foreign tissue, as a way to protect us.

This means that patients who receive a transplant are normally put on a course of immunosuppressant drugs for the rest of their lives.

However, these drugs have side effects and can increase the risk of infection.

Because of the dangers of coming off these medication, which can lead to the body rejecting the organ, it has previously been impossible to test which patients may not need them.

But the latest research, the results of a seven year study, has found a chemical "signature" which could signal which patients do not require the medication.

Around 10,000 people in Britain currently need a transplant.

In total around 3,000 such operations are carried out here every year, but another 1,000 people annually die languishing on waiting lists because of a shortage of donors.

Dr Maria Hernandez-Fuentes, from King's College London, who was part of the research team, said: "Astonishingly there are rare individuals who seem to develop tolerance naturally after a kidney transplant.

"This is usually only revealed when unexpectedly organ rejection does not take place if they have to stop taking their immunosuppressive drugs for some reason.

"We worked with renal units across Europe to identify this small number of patients and then sought to involve them in our research."

The group compared their findings with those from a team of American researchers, also looking at patients able to give up the drugs, and found similar results.

"The findings of this study are really exciting," says Dr Rachel Hilton, a renal consultant at London's Guy's Hospital.

"Now that they have been validated, we will be able to screen patients for these markers, and perhaps identify small numbers who can safely withdraw or reduce their use of immunosuppressants."

However, she warned that it was extremely important that transplant patients did not give up their immunosuppressant medication.

The findings are published in the Journal of Clinical Investigation.