Immune response to SARS-CoV-2 following organ transplantation

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A research team from the University Hospital at Ruhr-Universität Bochum (RUB) has developed a test that provides information on the immune response to the novel coronavirus in patients who need to take immunosuppressive drugs. This is necessary, for instance, following an organ transplantation. "We were able to show that these patients can achieve a good immune response to SARS-CoV-2 despite immunosuppression," says Professor Nina Babel, Head of the Center for Translational Medicine at Marien Hospital Herne. Immunosuppressive therapy can be adapted individually during a COVID-19 infection using the test. The researchers report in the American Journal of Transplantation on 10 August 2020.

Risk for organ transplant patients twice as high

Chronically ill patients with impaired immune defenses have an increased risk of suffering from a severe COVID-19 infection. Transplant patients are affected in several ways: in addition to the chronic illness that led to organ failure and subsequent transplantation, transplant patients need to take medications that suppress the defenses of their own immune system.

"These immunosuppressants are necessary to prevent the body from rejecting transplanted organs. However, they can lead to an abundance of viral infections," explains Nina Babel, who, together with Professor Timm Westhoff, Director of Medical Clinic I at Marien Hospital Herne, led the team, including researchers from the Department of Molecular and Medical Virology at RUB and the Surgical Clinic at Knappschaftskrankenhauses Langendreer.

"Until now, it has not been known whether our transplant patients are capable of forming a sufficient immune response to the new coronavirus," emphasizes Timm Westhoff.

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Provided by Ruhr-Universitäet-Bochum