

Press release

Geneva, 25 April 2016

A world first at HUG:

- **liver transplantation from a HIV-positive donor to a HIV-positive recipient**
- **six-month follow-up of the clinical course following the transplant**

In October 2015, Geneva University Hospitals (HUG) conducted the world's first liver transplant between two HIV patients. The six-month follow-up of this transplant shows no signs of organ rejection and confirms that the liver transplantation has not resulted in any loss of viral control in the recipient. This first transplantation performed in Switzerland, which has just been followed by a similar transplant in the United States, opens up unprecedented possibilities for people living with HIV. Not only can they now sign up as potential organ donors, there are also better transplantation prospects for those who are actually waiting for an organ. An article about this world first is featured in the American Journal of Transplantation dated 25 April 2016.

Swiss law - the only one of its kind

Organ transplants from HIV-negative donors to HIV-positive recipients are successfully practised in many countries, including Switzerland. However, organ donation from HIV-positive people is banned in most countries because of a fear of transmitting the HIV virus to the recipient.

Swiss law is remarkable in that, since 2007, it has allowed organ transplants from HIV-positive donors, restricting them to recipients who are also HIV-positive (Federal Act on the transplantation of organs, tissues and cells - 810.211) This situation removes discrimination and brings new hope to those affected by the AIDS virus.

Benefiting from this unique legal framework, HUG was the first hospital in the world to perform a liver transplant between a HIV-positive donor and recipient.

No transmission or reactivation of the HIV virus, and no organ rejection

The recipient and donor of the liver transplant performed in October 2015 at the HUG had been receiving antiretroviral therapy (HAART) for many years. Thanks to these treatments, the HIV virus was no longer detectable in either patient. Antibodies were the only remaining evidence of the infection.

Press release

However, some uncertainty remained about whether the transplant would transmit a new strain of the HIV virus which would be more difficult to treat, or whether the organ would be rejected.

The six-month follow-up shows that the transplanted liver has not been rejected, and that there has been no loss of viral control in the recipient.

Good news for all transplant candidates

This major milestone opens up exciting opportunities for people awaiting transplants. It will increase access to transplantation for HIV-positive patients who are on the organ transplant list.

In the only too familiar context of a worldwide shortage of organ donations, HIV-negative patients on the waiting list will also indirectly benefit from this breakthrough, since any transplantation between HIV patients will automatically reduce the total number of patients waiting for organs.

Thanks to advances in the treatment of HIV, particularly through HAART, the majority of HIV-positive patients in Switzerland have no detectable virus in the blood. However, in Switzerland, around 15% of deaths among people with HIV are linked to liver disease. To date, only 14 HIV-positive people have received a liver transplant (from HIV-negative donors) in Switzerland.

Unchanged mortality rate

Although some studies have suggested an increased risk of rejection for transplantation among HIV-positive recipients, the mortality rate among HIV-positive recipients does not increase when compared to transplant recipients without HIV. In the US, it is thought that lifting the ban on transplants between people with HIV could increase the potential pool of donors by around 500 patients per year, with as many as 1000 HIV-positive patients benefiting from a liver or kidney transplant annually.

The fact that people who are HIV-positive can now give their consent by signing a donor card and, should the need arise, donate their organs, also helps to reduce the stigma associated with HIV infection, which is unfortunately still all too present.

Transplantation performed at HUG

The donor is a 75-year-old man who died of cerebral haemorrhage. He had been HIV-positive since 1989. Having been informed by his doctor that Swiss law allows organ donation from people who have HIV, he gave his written consent.

The recipient was diagnosed as HIV-positive in 1987. He was informed of the additional risks he potentially incurred as a result of the transplant and signed an agreement with full knowledge of the facts.

Press release

To reduce the risk of the transplanted liver transmitting an uncontrolled viral strain from the donor, the recipient's antiretroviral therapy was modified and adapted to the characteristics of the donor's virus after the transplant. This strategy proved to be wise because six months on, no transmission of the virus has been detected.

The operating team

This transplant was made possible through the collaborative work of a multidisciplinary team made up amongst others of professor Alexandra Calmy - attending physician and head of the HIV unit, professor Thierry Berney - chief physician of the transplantation department, professor Christian van Delden - attending physician in charge of the transplantation infectious diseases unit, and professor Emiliano Giostra - specialist in liver diseases and deputy head of the transplantation department.

An article about this world first is featured in the American Journal of Transplantation dated 25 April 2016 and is available at:

<http://onlinelibrary.wiley.com/doi/10.1111/ajt.13824/abstract>.

B-rolls available :

Low definition (.mp4)

[Interviews physicians, patient, illustrations and surgery](#)

[Interview patient](#)

HD (.mp4)

[Interviews physicians, illustrations and surgery](#)

[Interview patient](#)

[Information on B-rolls, shotlists, transcription](#)

For further information

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The HUG: Care, Teaching and Research

The Geneva University Hospitals (HUG), reference academic institution at both national and international level, gather eight public hospitals of Geneva. Their centres of excellence cover hepatobiliary and pancreatic diseases, cardiovascular diseases, oncology, musculoskeletal and sports medicine, old age medicine, genetic medicine and vaccinology. With their 10,500 employees, the HUG welcome each year 60,000 hospitalised patients and assure 91,000 emergencies, 990,000 consultations or ambulatory care and 26,000 surgical procedures. More than 800 physicians, 3,000 interns and 150 apprentices perform their training here. The HUG are working closely with the Faculty of Medicine of the University of Geneva and WHO in various training and research projects. They develop partnerships with CHUV, EPFL, CERN and other actors from the Lemanic Health Valley. The annual budget of the HUG is 1.8 billion Swiss francs.

More information on:

- the HUG : www.hug-ge.ch-presse-hug@hcuge.ch
- Activity report, HUG at a Glance, and 2015-2020 Strategic Plan: <http://www.hug-ge.ch/publications-hug>