Transplant Research Develops Ways to Use Organs Infected With Hepatitis C

The risks are lower than ever—and could save patients months on organ waitlists.

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In the United States, nearly 113,000 people are on organ transplant waiting lists. Hundreds die every year while waiting for an organ.

In an effort to mitigate the shortage, doctors are increasingly turning to organs from donors who were living with hepatitis C virus (HCV). A recent report in Reuters overviews the latest research on transplanting HCV-positive organs and explains why a growing number of people are turning to transplants that could expose them to a potentially life-threatening virus.

Until recently, hospitals and transplant centers have typically discarded organs with hepatitis C because of the transmission risk. However, now that HCV is highly curable (with an up to 90% success rate), many doctors—and patients—are willing to receive a transplant that could result in an infection.

Doing so can help significantly reduce the amount of time patients spend on organ waitlists, allowing people to get well faster, and potentially saving thousands of lives in the process.

Currently, the way most HCV-positive transplants work is that patients receive an infected organ and are treated to cure their hepatitis C later, once their bodies have recovered. However, new research hopes to streamline the process and reduce the amount of time patients have to live with the infection—or, better yet, develop methods that can prevent an infection all together.

For example, a study published this April showed that treating patients for hepatitis C with antiviral therapy just hours after transplant surgery could successfully ward off an infection.

Other researchers are testing whether ultraviolet C light can deactivate the hepatitis C virus in infected organs before they're transplanted into another body. Scientists accomplish this by using a technique known as ex vivo lung perfusion, which keeps organs "alive" outside the body with oxygenated liquid while they're treated for infections.

Advances in perfusion could one day allow doctors to evaluate and rehabilitate organs for transplant for a variety of infections—from hepatitis C to fatty liver disease.

However, not all research done around the topic has been a success. A study published this week in The Lancet Respiratory Medicine found that adding light therapy significantly reduced the number of HCV cells in donated lungs; nonetheless, 20 out of 22 patients in the study still contracted hepatitis. All were treated and cured after the study.

The influx of research around HCV-positive organs comes as a result of the U.S. opioid crisis, which has led to a massive spike in available organs available across the country. Since hepatitis C is commonly spread through sharing needles, many people who die of opioid overdoses test positive for the virus.

Currently, overdose victims account for 13% of U.S. organ donations, up from less than 4% a decade ago, according to the United Network on Organ Sharing (UNOS), which oversees transplants in the United States.

For more information about HCV-positive transplantation, click here.
