UV Light Therapy is Being Studied as a COVID-19 Treatment at Cedars Sinai Hospital
Cedars-Sinai Hospital is performing research on Heallight, a UV light therapy for respiratory infections.

During an April 23 press briefing, President Trump's suggested that he was interested in exploring new potential novel coronavirus treatments, saying, "supposing we hit the body with a tremendous — whether it's ultraviolet or just very powerful light...supposing you brought the light inside of the body, which you can do either through the skin or in some other way. And I think you said you're going to test that too. Sounds interesting."

Trump's statements came immediately after Bill Bryan, an undersecretary at the Department of Homeland Security (DHS), presented a U.S. government-funded study with preliminary research that found that the virus does not survive as long when exposed to heat, sunlight, and humidity.

And while Trump has not clarified exactly what he was referring to when he mentioned a "very powerful light," there is an actual UV light therapy that is being explored as a potential treatment for coronavirus and other respiratory infections.

UV Light Therapy Explained
Again, while it's not clear if Trump was actually referring to this particular UV light therapy, according to an April 21, 2020 press release, Aytu BioScience, Inc. has partnered with Cedars-Sinai to develop and commercialize its Healight Platform Technology, commonly known as "Healight". The Healight technology delivers intermittent ultraviolet (UV) A light through an endotracheal catheter and according to the company, it is being studied as a potential treatment for coronavirus and other respiratory infections.

First developed in 2016 by the research team of the Medically Associated Science and Technology (MAST) Program at Cedars-Sinai and led by Mark Pimentel, MD, Healight has shown potential as an effective antiviral and antibacterial treatment. The device uses UVA light, because of all three forms of UV light, UVA has been shown to have the least amount of harm to mammalian cells while still killing viral and bacterial cells.

Aytu is working alongside a research team at Cedars-Sinai Hospital on an expedited regulatory process to try to use the technology faster for critically ill intubated patients. The company notes that along with being a potential treatment for viral and bacterial pathogens, Healight may also be helpful in treating bacterial infections in ventilator-associated pneumonia.

"Our team has shown that administering a specific spectrum of UV-A light can eradicate viruses in infected human cells (including coronavirus) and bacteria in the area while preserving healthy cells," Dr. Pimentel of Cedars-Sinai stated.

Healight is not yet approved by the FDA for use or approved as a COVID-19 treatment, and more studies on its use in humans will be needed before it can be verified as effective. In addition to the UV light therapy, the company also recently acquired U.S. rights for a COVID-19 IgG/IgM Rapid Test, so it may soon have the ability to do rapid testing for the virus.

What About that Disinfectant Comment?

During the same press briefing that the President commented on the "very powerful light," Bryan also presented findings on using light as a disinfectant.

Importantly, Dr. Bryan explained that light was the best solution they tested, and it killed the virus "in one minute." The "one minute" comment is key to understanding that Trump was always talking about light as the "disinfectant," in the same way the expert used the word when talking about light.

After hearing this, President Trump also commented, "And then I see the disinfectant, where it knocks it out in a minute. One minute...And is there a way we can do something like that, by injection inside or almost a cleaning? Because you see it gets in the lungs and it does a tremendous number on the lungs. So it would be interesting to check that."

Obviously, it would be interesting indeed if killing a novel virus was as easy as injecting a targeted way to kill it, but unfortunately, no healthcare technology is that effective or specific yet. As most healthcare professionals know, viruses are ingeniously difficult to target and treat, because of the way they work in our bodies. Unlike bacteria, which are almost like dumbed-down, lumbering giants in comparison, viruses are tiny, evil invaders that take over human cells in order to replicate and kick out more versions of themselves. nope.

Bacteria live and reproduce outside of human cells, so we can target them through antibiotics, but because viruses live in human cells, it's difficult to kill them off without also killing the human cells. There are forms of antiviral medications that work to slow viral production in the body, such as remdesivir, which helps to stop the viral replication process without damaging human cells. Remdesivr is being studied for use in coronavirus treatment for hospitalized patients in Nebraska.

Outside of actually stopping the virus from inhibiting human cells and replicating itself, other therapies for viruses involve supporting the immune system in doing its job to knock down the virus. For instance, a clinical trial running through September is currently exploring how a high dose of intravenous Vitamin C may help patients infected with 2019-nCoV as a form of immunotherapy.