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San Diego biotech to test if medical device removes coronavirus from blood



Aethlon Medical plans to test whether its Hemopurifier filters out the novel coronavirus. (Aethlon Medical)

Aethlon Medical received the OK from the FDA to test its blood-filtering device on severe COVID-19 patients

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San Diego biotech Aethlon Medical announced Thursday that it plans to test a device it believes could remove the novel coronavirus from the blood of COVID-19 patients and, ultimately, help them recover sooner.

There are hundreds of experimental COVID-19 treatments in the works that target the novel coronavirus or symptoms triggered by its infection. But Aethlon is taking a different tack — removing the virus from a patient’s blood and reinfusing virus-free blood.

The device, which Aethlon calls a Hemopurifier, looks a bit like a dialysis cartridge. Inside are a bundle of narrow tubes for blood to pass through. These tubes are porous, but the pores are so small that only viruses slip out. Blood cells stay within the tubes and get pumped back into the patient. But viruses get caught by a part of the device that gloms onto sugary molecules that coat many viruses.

The company has tested the Hemopurifier about 100 times on more than 30 patients with Hepatitis C, Ebola and other viral infections. Aethlon also has laboratory data showing that the device can remove the virus that causes Middle East respiratory syndrome, or MERS, a genetic cousin of the new coronavirus.

Aethlon’s device may seem an odd fit for COVID-19. After all, the novel coronavirus mostly spreads through coughing and sneezing and its main targets are the lungs. But Timothy Rodell, CEO of Aethlon and a pulmonologist by training, points out that some patients get symptoms that suggest the virus can also spread through the blood, including blood clots.

The company has received permission from the Food and Drug Administration to enroll 40 patients with severe COVID-19 in a study testing Hemopurifier.

“There are two things that we can look at that are really important. The first one is, are we clearing the virus?” Rodell said. “The second is, are people doing better?”

The initial study’s focus will be filtering out the virus. If all goes well, Rodell says, the company will conduct a larger follow-up study to look in detail at whether COVID-19 patients on the Hemopurifier have shorter stays in the intensive care unit and spend less time on ventilators.