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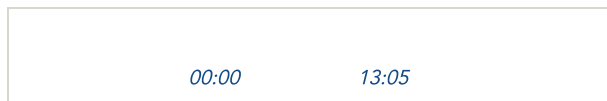
By Chris at 10:10 am, May 05, 2020

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Podcast: GW Hospital Uses Innovative VR Technology to Assess Its First COVID-19 Patient

Listen to the podcast:



Podcast with video:

COVID-19 Virtual Reality Technology at GW Hospital V3



Podcast abstract:

The George Washington University Hospital received its first COVID-19-positive patient on Wednesday, March 18, 2020. The man, in his late 50s, was transferred from another hospital after his initial symptoms (fever, cough, shortness of breath) quickly escalated. He was connected to a ventilator at that hospital, but eventually required a more-intensive intervention.

“What we’re seeing is that there was rapid and progressive damage to the lungs so that he needed higher levels of support from that ventilator and it got to the point where he needed maximal support from the ventilator,” said Dr. Keith Mortman, Chief of Thoracic Surgery at GW Hospital, in an interview for the hospital’s podcast, HealthCast. “That was when the outside hospital reached out to our expert team here at GW and the patient was transferred to us for something called ECMO, which stands for extracorporeal membrane oxygenation.”

ECMO, which involves removing blood from the body, infusing it with oxygen and returning it to the body, is one of several advanced technologies being used as GW Hospital treats its first patient with COVID-19.

Virtual Reality (VR) Technology

GW Hospital is using Virtual Reality (VR) technology in the fight against COVID-19. VR technology enables the medical team to see into the patient's lungs. What they have seen has been concerning.

"There is such a stark contrast between the virus-infected abnormal lung and the more healthy, adjacent lung tissue," said Dr. Mortman. "And it's such a contrast that you do not need an MD after your name to understand these images. This is something the general public can take a look at and really start to comprehend how severe the amount of damage this is causing the lung tissue. The damage we're seeing is not isolated to any one part of the lung. This is severe damage to both lungs diffusely."

Dr. Mortman is especially concerned with the possibility of enduring damage to the lungs of those who survive COVID-19. "When that inflammation does not subside with time, then it becomes essentially scarring in the lungs, creating long-term damage," he said. "It could impact somebody's ability to breathe in the long term."

Mortman said that about 20 percent of those who contract COVID-19 develop symptoms and a portion of those develop severe symptoms that ultimately require mechanical assistance to breathe. While media reports suggest that the risk of severe symptoms is most prevalent among older adults, Dr. Mortman points out that younger people are at risk too, as increasing numbers of them are being hospitalized. And even those who never develop symptoms can pass the virus to others they come in contact with, including neighbors, parents and grandparents.

"It is affecting every age group and every country, all 50 states in the U.S., so this is nationwide, a global, a community problem," he said.

Image showing lung tissue infected by COVID-19



For the latest on the coronavirus:

[Visit the Centers for Disease Control and Prevention → \(https://www.cdc.gov/coronavirus/2019-ncov/index.html\)](https://www.cdc.gov/coronavirus/2019-ncov/index.html)

[Get updates on GW Hospital's response, including services and visitation → \(/health-alert\)](/health-alert)

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