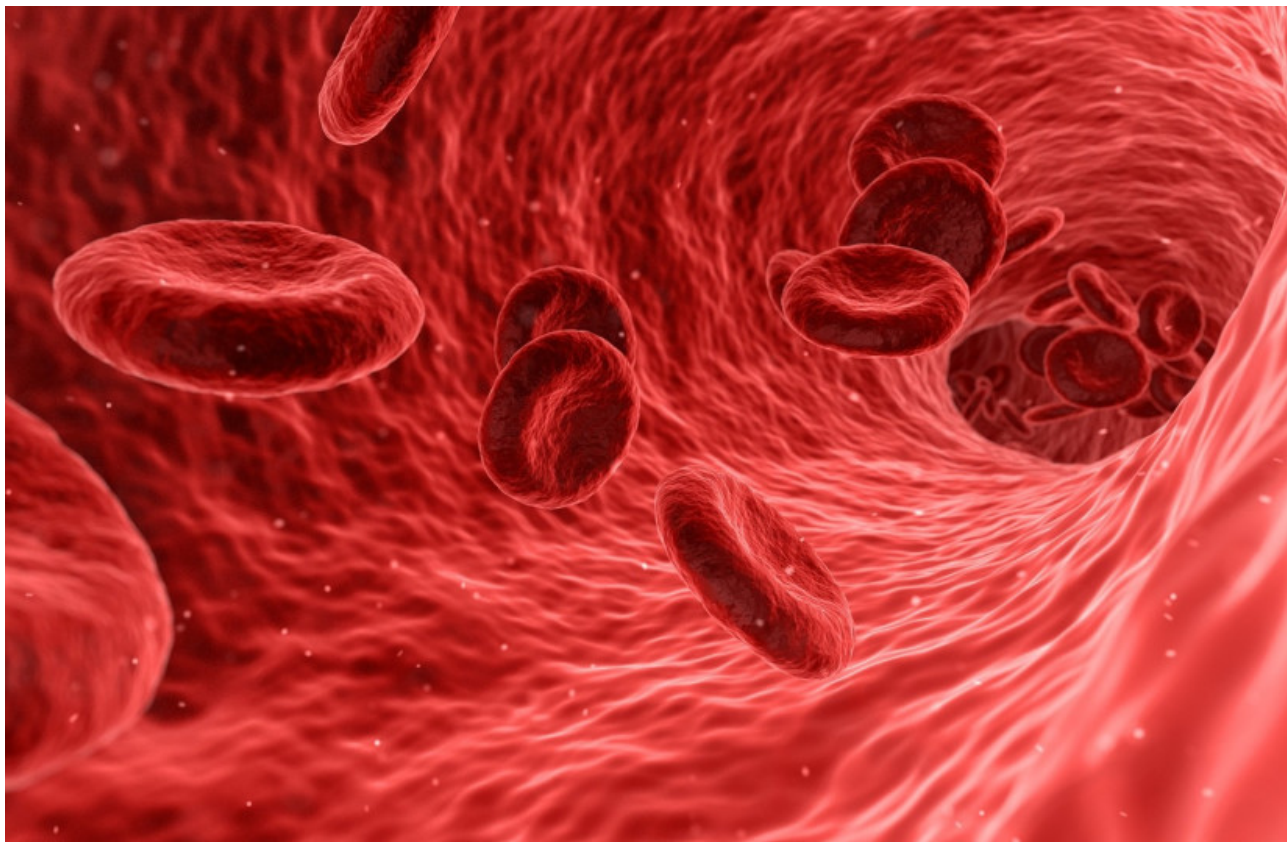


Hadassah doctors crack the cause of fatal corona blood clots

Hadassah researchers discovered that patients who form fatal blood clots have an increased level of alpha defensin protein in their blood.

By [MAAYAN JAFFE-HOFFMAN](#) JUNE 16, 2020 18:31



Red blood cells (illustrative) (photo credit: Wikimedia Commons)

A research team at Hadassah-University Medical Center in Jerusalem's Ein Kerem has discovered what they believe causes [coronavirus](#) patients to become seriously ill and even die. They also say they have a way to treat the cause before it's too late.

At least 30% of patients with coronavirus develop blood clots that block the flow of blood

to their kidneys, heart and brain, as well as the lungs, according to international research.

Hadassah researchers discovered that the patients who form these fatal clots have an increased level of alpha defensin protein in their blood, explained Dr. Abd Alrauf Higavi, who directs a lab at Hadassah and has been studying blood clots for 30 years.

“Patients with mild symptoms have a low concentration of alpha defensin,” he said. “Patients with strong disease symptoms have high levels. The people who die have very high levels.”

The Hadassah team studied more than 700 blood samples from 80 patients who were admitted to the medical center during the first peak of the coronavirus outbreak in Israel. The results show that alpha defensin speeds up blood clot formation, which can cause pulmonary embolism, heart attacks and stroke. In addition, when blood clots form in the alveoli, whose function it is to exchange oxygen and carbon dioxide molecules to and from the bloodstream, this can lead to respiratory distress and eventually intubation.

Multiple studies have shown that around 80% of coronavirus patients who are intubated have died.

Higavi said his team are en route to a solution: administering the drug colchicine to coronavirus patients.

Colchicine is an approved drug used in the prevention and treatment of gout attacks, caused by too much uric acid in the blood. Higavi said they have completed testing colchicine on mice and found that it successfully inhibited the release of alpha defensin. Now, they are waiting for the necessary approvals to test it on human coronavirus patients.

The researcher said that clinical trials would look at use of the drug both for severe cases and administering it to patients with mild or moderate symptoms to see if it will help decrease the chances of their developing a severe case of the disease.

“The drugs available today in the blood-thinning market do not fully address this clotting, since its mechanism differs from the mechanisms for which these drugs currently exist,” Higavi said. “Resources should be diverted to finding a suitable drug for coronavirus patients.”