TEL AVIV HOSPITAL HAILS 'A HUGE BREAKTHROUGH'

New Israeli drug cured 29 of 30 moderate/serious COVID cases in days — hospital

Medicine developed at Ichilov moderates immune response, helps prevent deadly cytokine storm, researchers say; 29 of 30 phase 1 trial patients left hospital within 3-5 days

By TOI STAFF

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illustrative: Human respiratory system (magicmine; istock by Getty images)

A new coronavirus treatment being developed at Tel Aviv's Ichilov Medical Center has successfully completed phase 1 trials and appears to have helped numerous moderate-to-serious cases of COVID-19 quickly recover from the disease, the hospital said Friday.

Hailing a "huge breakthrough," the hospital said Prof. Nadir Arber's EXO-CD24 substance had been administered to 30 patients whose conditions were moderate or worse, and all 30 recovered — 29 of them within three to five days.

The medicine fights the cytokine storm — a potentially lethal immune overreaction to the coronavirus infection that is believed to be responsible for much of the deaths associated with the disease.

It uses exosomes — tiny carrier sacs that shuttle materials between cells — to deliver a protein called CD24 to the lungs, which Arber has spent decades researching.

"This protein is located on the surface of cells and has a well known and important role in regulating the immune system," said researcher Shiran Shapira of Arber's lab.

The protein helps calm down the immune system and curb the storm.



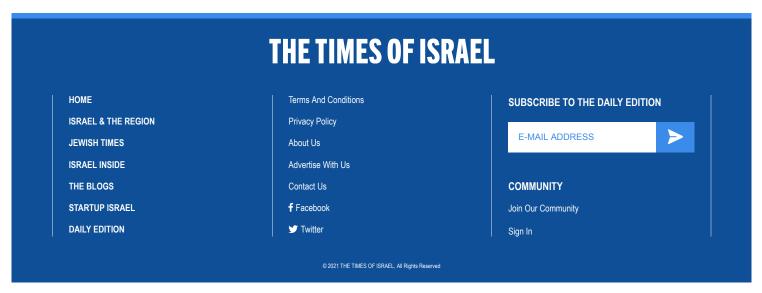
In this Nov. 19, 2020, file photo, ventilator tubes are attached to a COVID-19 patient at Providence Holy Cross Medical Center in the Mission Hills section of Los Angeles (AP Photo/Jae C. Hong,)

"The preparation is inhaled once a day for a few minutes, for five days," Arber said. "The preparation is directed straight to the heart of the storm — the lungs — so unlike other formulas... which selectively restrain a certain cytokine, or operate widely but cause many serious side effects, EXO-CD24 is administered locally, works broadly and without side effects."

The medicine will now move on to further trial phases, but hospital officials were already hailing it as a possible game-changer in fighting serious COVID-19 illness.

Ichilov director Roni Gamzu, the former coronavirus czar, said the research "is advanced and sophisticated and may save coronavirus patients. The results of the phase 1 trial are excellent and give us all confidence in the method [Arber] has been researching in his lab for many years."

He added: "I am proud that at Ichilov we are... possibly bringing a blue and white remedy to a terrible global pandemic."



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