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## Case Report

# Treating of A Patient Infected with COVID-19 Virus by Newcastle Disease Virus

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## Case Report

The acute respiratory syndrome of the coronavirus which was originated from the city of Wuhan, China belongs to the family of coronaviruses (1). Interaction of Newcastle disease virus (NDV) with infectious bronchitis virus (IBV) of poultry which be-longs to the coronavirus family has been under investigation. It is probable that the phenomenon of interference between Covid-19 virus and Newcastle disease virus which is not pathogenic for human could happen (2-9).

The first sick person who was voluntarily treated by the Newcastle virus was a 55-year-old man who contracted the Covid-19 virus 6 days before. His illness started with mild swelling in the throat and mild fever in the first days of the illness. Then disease progressed with high fever and lethargy, severe muscle pain, sweating, headache and excessive sweating were evident. On the seventh day after sickness, 0.1 ml (log 108 /ml) of live Newcastle (strain I2) vaccine was inoculated to the patient through nasal drops. After 12 hours, all symptoms of Covid-19, including lethargy, fever, muscle pain, sweating, and heavy headache disappeared. But cough and throat discharge continued for about 20 days. In order to ensure the viremia of the Covid-19 virus and the New-castle virus in the patient , 27 days after the onset of the disease, the patient's sera was sent to the Razi Institute's Covid-19 research laboratory for assay of virus neutralization (VN) (covid-19 antibody blood assay) and hemagglutination inhibition (HI) assay of Newcastle virus antibody. Result of VN assay was 700 (VN50) and HI was 4 based on the log

2 that was very high amount of antiserum against the Covid-19 virus and NDV. Therefor with the experience of the spread of diseases such as SARS, MERS and Covid-19 and other emerging diseases in the future, the use of interference phenomenon becomes more important. This means that in pandemic conditions, biological researchers identify useful viruses and use them to eliminate the dangerous virus instead of waiting for the discovery of a drug or vaccine against it, which requires spending time and money .

As a conclusion, It seems that by using the phenomenon of interference between Newcastle and the covid-19 virus, it is possible to prevent the covid-19 disease, but the proof of this issue and the achievement of valid scientific reasons require extensive research.

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## Conflict of Interest

No conflict of interest is declared.

## Ethics Approval and Consent to Participate

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The success of using the interference phenomenon between Newcastle and Covid-19 was achieved in the treatment of a volunteer.

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