Review Article

JRAD Journal of Research and Advancement in Dentistry

J Res Adv Dent 2020;10:2s:182-185.

A virus which is More Deadly than World War Three: Coronaviruses (CoVs)

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ABSTRACT

Background: Corona-viruses are a family of enveloped, single-stranded, positive-strand RNA viruses classified within the Nidovirales order. This corona-virus family consists of pathogens of many animal species and of humans, including the recently isolated severe acute respiratory syndrome coronavirus (SARS-CoV). In the following article , we are going to explain in details about coronaviruses.

Keywords: Roniviridae families, novel coronavirus-infected pneumonia (NCIP).

INTRODUCTION

Coronaviruses (CoVs) are the largest group of viruses belonging to the *Nidovirales* order, which includes *Coronaviridae, Arteriviridae, and Roniviridae* families. The *Coronavirinae* comprise one of two subfamilies in the *Coronaviridae* family, with the other being the *Torovirinae*. The Coronavirinae are further subdivided into four groups, the alpha, beta, and gamma and delta coronaviruses. The viruses were initially sorted into these groups based on serology but are now divided by phylogenetic clustering.

What are the symptoms?

Doctors are learning new things about this virus every day. So far, we know that COVID-19 may not initially cause any symptoms for some people. You may carry the virus for 2 days or up to 2 weeks before you notice symptoms[1].

Some common symptoms that have been specifically linked to COVID-19 include:

- shortness of breath
- having a cough that gets more severe over time
- a low-grade fever that gradually increases in temperature

These symptoms may become more severe in some people. Call emergency medical services if you or someone you care for have any of the following symptoms:

- trouble breathing
- blue lips or face

Received: Jan. 18, 2020: **Accepted**: Mar. 7, 2020
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pISSN 2278-0076
eISSN 2321-9270

- persistent pain or pressure in the chest
- confusion
- excessive drowsiness

The full list of symptoms is still being investigated.[2]

COVID-19 versus the flu

We are still learning about whether the 2019 coronavirus is more or less deadly than the seasonal flu.

Here are some common symptoms of the flu:

- cough
- runny or stuffy nose
- sneezing
- sore throat
- fever
- headache
- fatigue
- chills
- body aches

What causes coronaviruses?

Coronaviruses are zoonotic. This means they first develop in animals before developing in humans.

For the virus to pass from animal to humans, a person has to come into close contact with an animal that carries the infection.[3] Once the virus develops in people, coronaviruses can be spread from person to person through respiratory droplets. This is a scientific name for the wet stuff that moves through the air when you cough or sneeze. The viral material hangs out in these droplets and can be breathed into the respiratory tract (your windpipe and lungs), where the virus can then lead to an infection.[4]

Who's at increased risk?

You're at high risk for contracting SARS-CoV-2 if you come into contact with someone who's carrying it, especially if you've been exposed to their saliva or been near them when they've coughed or sneezed.

Without taking proper preventative measures, you're also at high risk if you:

- live with someone who has contracted the virus
- are providing home care for someone who has contracted the virus
- have an intimate partner who has contracted the virus

Older people and people with certain health conditions have a higher risk of severe complications if they contract the virus. These health conditions include:

- lung conditions, such as COPD and asthma
- certain heart conditions
- immune system conditions, such as HIV
- cancer that requires treatment
- severe obesity
- other health conditions, if not well-controlled, such as diabetes, kidney disease, or liver disease[5]

How are coronaviruses diagnosed?

COVID-19 can be diagnosed similarly to other conditions caused by viral infections: using a blood, saliva, or tissue sample. However, most tests use a cotton swab to retrieve a sample from the inside of your nostrils.

What treatments are available?

There's currently no treatment specifically approved for COVID-19, and no cure for an infection, although treatments and vaccines are currently under study. In some cases, experimental treatments are tested to see how effective they are. Examples of therapies used for these illnesses include:

- antiviral or retroviral medications
- breathing support, such as mechanical ventilation
- steroids to reduce lung swelling
- blood plasma transfusions

What are the possible complications from COVID-19?

The most serious complication of a SARS-CoV-2 infection is a type of pneumonia that's been called 2019 novel coronavirus-infected pneumonia (NCIP). Results of 138 people admitted into hospitals in Wuhan, China, with NCIP found that 26 per cent of those admitted had severe cases and needed to be treated in the intensive care unit (ICU). About 4.3

per cent of these people who were admitted to the ICU died from this type of pneumonia. It should be noted that people who were admitted to the ICU were on average older and had more underlying health conditions than people who didn't go to the ICU.[6] So far, NCIP is the only complication specifically linked to the 2019 coronavirus. Researchers have seen the following complications in people who have developed COVID-19:

- acute respiratory distress syndrome (ARDS)
- irregular heart rate (arrhythmia)
- cardiovascular shock
- severe muscle pain (myalgia)
- fatigue
- heart damage or heart attack

How to prevent coronaviruses

The best way to prevent the spread of infection is to avoid or limit contact with people who are showing symptoms of COVID-19 or any respiratory infection.

The next best thing you can do is practice good hygiene and social distancing to prevent bacteria and viruses from spreading.[7]

Prevention tips

- Wash your hands frequently for at least 20 seconds at a time with warm water and soap. How long are 20 seconds? About as long as it takes to sing your "ABCs."
- Don't touch your face, eyes, nose, or mouth when your hands are dirty.
- Don't go out if you're feeling sick or have any cold or flu symptoms.
- Stay at least 3 feet (1 meter) away from anyone who is coughing or sneezing.
- Cover your mouth with the inside of your elbow whenever you sneeze or cough. Throw away any tissues you use right away.
- Clean any objects you touch a lot. Use disinfectants on objects like phones, computers, utensils, dishware, and doorknobs.

CONCLUSION

First and foremost, don't panic. You don't need to wear a mask or be quarantined unless you suspect you have contracted the virus or have a confirmed test result. Following simple hand washing and social distancing guidelines may help protect you from being exposed to the virus. The 2019 coronavirus probably seems scary when you read the news about new deaths, quarantines, and travel bans. Stay calm and follow your doctor's instructions if you're diagnosed with COVID-19 so you can recover and help prevent it from spreading.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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