COVID-19

Literature review current through June 2020

Document created on 18th June 2020

What is coronavirus and COVID-19? Are they same?

Coronavirus are enveloped RNA viruses that infect several mammals including humans. While four human coronaviruses caused mild seasonal respiratory infections, SARS and MERS caused outbreaks in China and Middle East.

Recent outbreak which began in Wuhan China is caused by a new coronavirus distantly related to SARS and hence renamed as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)

Disease caused by this new virus is called as COrona VIrus Disease (COVID) and 19 refers to year 2019 and hence COVID-19

What are the common symptoms?

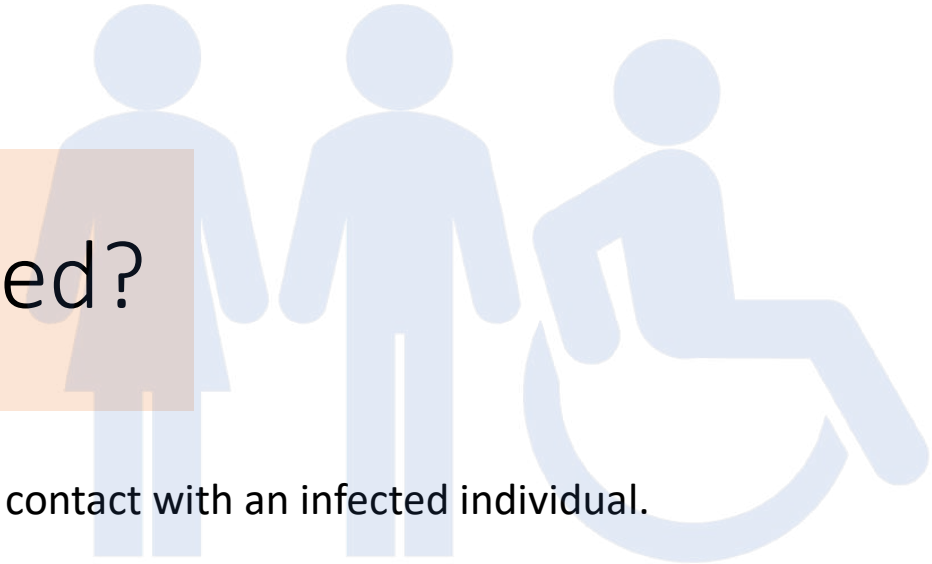
- Most common symptoms are fever and cough which begin slowly unlike flu.
- Myalgia (pain in muscle), aches and pain, headache are some of the other symptoms encountered.
- 1/3rd to 3/4th of the patients can get shortness of breath after several days.
- Less commonly sort throat, running nose or diarrhea may occur

Asymptomatic – Many may not show any symptoms at least initially

Other Clinical Features

- Some may not have fever but only chills and cough to begin with
- Fatigue
- Loss of appetite

Who can get affected?



- ✓ Anyone can get affected who comes in contact with an infected individual.
- ✓ Disease is more symptomatic in adults and older individuals.
- ✓ Young people are more likely to carry the virus without symptoms.

How does infection spread?

- Small droplets – Stay away at least 2 meters
- Touching objects infected with such droplets and then touching your eyes, nose or mouth; This generally occurs in the immediate environment around the infected person
- Being together in confined spaces such as aircrafts, cars can increase risk of transmission.

Airborne trasmission

- This is seen in special situations like
  - endotracheal intubation,
  - bronchoscopy,
  - open suctioning,
  - administration of nebulized treatment,
  - manual ventilation before intubation,
  - turning the patient to the prone position,
  - disconnecting the patient from the ventilator,
  - non-invasive positive-pressure ventilation,
  - tracheostomy, and cardiopulmonary resuscitation.
- These are situation when aerosols are being generated

- It is important to note that the detection of RNA in environmental samples based on PCR-based assays is not **indicative of viable virus** that could be transmissible.

How else can it spread?

Urine?	Stool	Pet and mosquitoes
Possible	Possible Risk	Unlikely

Stool – No reports yet and only one study showed that virus can be cultured from stool

How else can it spread?

Sweat

Tears

No

Possible Risk

Stool – No reports yet and only one study showed that virus can be cultured from stool

How else can it spread?

Blood

No

Direct mother to baby transplacental transfer?

No

Breast Milk

Unknown and no specific guidelines – continue breast feeding

What is meant by incubation period? Why is it so essential?

- Time taken for the virus to manifest is referred to as incubation period
- In case of Coronavirus, it is 2 - 14 days (typically 5-12 days), very rarely up to 4 weeks
- This means you may take upto 14 days after coming in contact with an infected individual before you show any symptoms. Hence the need for “quarantine”

Can it be transmitted even if the infection is mild?

- Yes it can be transmitted even if infection is mild .

Can it be transmitted even if patient is asymptomatic?

- There is a theoretical risk but it has not been found to spread infection.

Does it always run a serious course? Should you be worried?

- Most infections are mild and hence you should not switch on your worry button
- Some patients who are initially mild may become sick after 5-7 days
- But it is essential to inform your doctor so that appropriate quarantine/isolation can be done; This is important as you with your ”milder” disease may affect someone who may not be fortunate enough to run a milder course.

Recovery Time?

- The median time from symptom onset to clinical recovery for mild cases is approximately 2 weeks and 3 to 6 weeks for severe or critical cases.

Are patients with rheumatic diseases at increased risk of getting COVID-19?

No they are not at increased risk of getting infection

Are patients on immunosuppression at increased risk of getting more severe disease?

- Data from patients with underlying rheumatic disease is still lacking. But patients with underlying lung disease, diabetes, stroke or heart disease or age above 60 years are at increased risk of running a more severe case.
- But what is essential is consult your rheumatologist for any doubts.
- Continue your medications and contact your rheumatologists if you develop flu like symptoms or any evidence of any infection.

Of all the rheumatic diseases which is at highest risk of running a severe course?

- First and foremost, if you don't follow standard preventive measures you are at increased risk irrespective of disease activity.
- Secondly data is lacking regarding which autoimmune disease is at so called "higher" risk.
- It is not the disease, but organ affected because of disease and other co-morbidities that decide COVID prognosis.

Can we continue our medications?

YES

Let your treating Rheumatologist take a call

How can we prevent the transmission?

- Avoid unnecessary travelling especially airplanes and public transport
- Avoid social functions wherever possible
- Sneeze into a tissue preferably to avoid contaminating clothes or hands
- Avoid going to crowded places
- Contact your doctor immediately if you are unwell or if there is any suspicion

How can we prevent the transmission?

- Cover your face with a mask if you have flu like symptoms and consult immediately
- Avoid handshakes, touching eyes, nose or mouth
- Wash your hands diligently with soap and water or Use spirit with 60% or more alcohol. This kills the viruses and other potential infectious micro-organisms.

Should I reschedule my next appointment?

- If you are doing well, you can discuss with your rheumatologist regarding the next appointment.
- Some rheumatologists have already started doing teleconferencing.
- If disease is in remission and routine blood investigations are normal, you can ask your rheumatologists if the prescription can be renewed through teleconferencing.

Who should use the mask?

- Masks if properly used, are useful to reduce transmission. If two individuals are wearing the mask chance of transmission if less than 1-2% if one of two is infected.
- Mask should be used by everyone
- You can wear cloth masks or three layered surgical masks. Keep a pair of cloth mask and wash them everyday; they can be reused upto 4 weeks
- Hand hygiene should be followed when wearing as well as taking off the mask.

What is the correct method of wearing the mask?

- Wash your hand first as advised previously
- Place mask carefully to cover mouth, nose and chin and tie securely to minimise any gaps between the face and the mask
- Colored side should be facing outwards and border with metal strip should be on the top
- Avoid touching the mask when it worn as well as when taking off the mask
- Remove it by untying the lace and holding the mask with the lace
- Follow hand hygiene and clean your hands after taking off the mask upon removal.
- Refer to https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak for more details

How many times a surgical mask can be reused? How to dispose off?

- Discard the mask immediately in a closed bin
- Avoid re-use

Hand Hygiene

- Wash your hands with soap for 20 seconds
- If you think your forearm has been exposed then wash forearm followed by hands
- You can also use alcohol based sanitizer with alcohol content more than 65%

How long does the virus survive on surfaces?

Surface	Duration
Copper	8 hours
Cardboard	24 hours
Steel	72 hours
Paper	4-5 days
Plastic	7 days

Methods of disinfecting surfaces (derived from SARS-CoV)

Chemical	Strength (%)	Duration of contact
Sodium hypochlorite	0.21 0.01	30 seconds 10 minutes
Hydrogen peroxide	0.5	1 minute
Formaldehyde	1	2 minutes
Povidone iodine	0.23 – 0.47	1 min
Benzalkonium chloride	0.04	1 min

G. Kampf et al 2020

How long does the virus survive on surfaces?

- Dirty clothes should be washed with hot water (60-90 degree Celsius) with detergent and bleach. Machine dry on a high temperature or under sun.

What are the definite treatment options?

- There are no virus specific drugs as yet. Certain antiviral medications are being tried but no proven benefit.
- Management depends on the extent of disease.
- Antibiotics help if there is secondary bacterial infection

Can anti-malarial drugs help in treatment?

- There are preliminary reports which have showed anti-malarial therapy of some benefit.

- But larger trials and more data are needed.

What is outcome of the disease?

- Outcome is unpredictable as different countries are reporting different level of severity
- But one thing that is common is more than 90% recover.
- This does not mean we can be complacent as we are yet to completely understand the virus and the disease. Outcomes are variable

Can it be prevented through some medications or other measures?

- Unfortunately not.
- No drugs or magic or kapoor/camphor or garlic or turmeric can prevent this.
- There is no evidence for medications from allied health sciences either as yet.
- Prevention strategies have been already outlined and should be followed.

What drugs should be avoided?

- There are no obvious drugs that need to be avoided or are contraindicated. Consult your rheumatologist before taking any decision. Standard guidelines meant for any infection are to be followed.

- Fear of ACE inhibitors or ARB used in hypertension and various other diseases is unfounded and not proven.

- There are reports of ibuprofen and some diabetic drugs, but nothing is proven as yet. NSAIDs in general are avoided if you get a viral infection. Consult your rheumatologist.

Is there any vaccine?

- Lot of work is going on to develop a vaccine, but it will take 6-12 months if the various phases of trials go well and are successful.

Can patients with Rheumatic diseases receive vaccine?

- It will be wise to complete your vaccination in consultation with a rheumatologist

- Prioritize influenza but vaccinate for whooping cough and pneumococcus infection as well.

Should I stock medications or grocery?

- There is panic amongst many and we cannot fault them for same. It is essential you learn and read about the disease and follow the prevention strategy.
- There is no need for stocking things.
- Let us be positive and disciplined.

Autoimmune Disease

Remember

Rheumatic Diseases

- Continue your medications as prescribed.
- DO NOT STOP medications on your own.
- Consult your rheumatologist if you have any doubts or features suggestive of infection.

Arthritis

Got more questions?

Mail us on indianrheum@gmail.com or

write on our Facebook page https://www.facebook.com/IndianRheumatology/ or

tweet us @www.twitter.com@Indianrheum

For more details and regular updates, visit	https://www.who.int/health-topics/coronavirus
For latest updates on outbreak, visit	https://www.worldometers.info/coronavirus/
India's very own COVID19 Dashboard	https://covidout.in/

Remember the old saying

Prevention is better than cure

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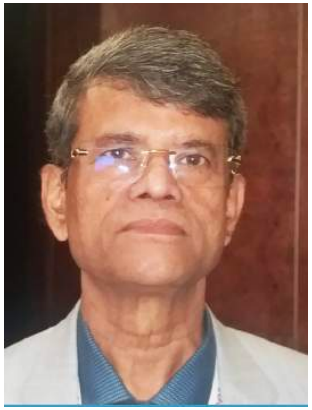

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