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Myths about COVID-19

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ABSTRACT

Recently at the end of 2019, a new disease was found in Wuhan, China. This disease was diagnosed to be caused by a new type of coronavirus and affected almost the whole world. Chinese researchers named this novel virus as 2019-nCov or Wuhan-coronavirus. However, to avoid misunderstanding the World Health Organization noises it as COVID-19 virus when interacting with the media COVID-19 is new globally as well as in India. This has disturbed peoples mind. There are various rumours about the coronavirus in Indian society which causes panic in peoples mind. It is the need of society to know myths and facts about coronavirus to reduce the panic and take the proper precautionary actions for our safety against the coronavirus. Thus this article aims to bust myths and present the facts to the common people. We need to verify myths spreading through social media and keep our self-ready with facts so that we can protect our self in a better way. People must prevent COVID 19 at a personal level. Appropriate action in individual communities and countries can benefit the entire world.



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INTRODUCTION

Corona signifies crown-shaped "spikes" on the outer surface of the virus when viewed under an electron microscope; thus, it was named as a coronavirus. The size of the coronavirus is 65–125 nm in diameter and 26 to 32kbs in length. Coronavirus is a single-stranded RNA virus. Family of coronavirus is corona viridae and order is Nidovirales. Coronaviruses have four sub-groups which are a-Alpha, b-Beta, c- Gamma & d-Delta coronavirus (Shereen et al., 2020). 2002 in Guangdong -China, SARS-CoV

caused SARS, i.e. "Severe Acute Respiratory Syndrome" in humans which were thought to be infecting only animals (Zhong et al., 2003). This virus is of Beta coronavirus subgroup and hence being called as SARS-CoV (Wang et al., 2013; Peiris et al., 2004). The patients infected with SARS-CoV showed symptoms of pneumonia and ARDS caused by the alveolar injury. SARS infected around 8000 people causing dead of 776 people worldwide. After ten years in 2012, a pair from Saudi Arabia was diseased with another virus. The virus was diagnosed to be MERS-CoV, i.e. "Middle East Respiratory Syndrome Coronavirus," a member of coronaviruses, beta subgroup WHO informed that around 2428 people were MERS coronavirus positive and causing 838 deaths (Pyrce et al., 2007; Rahman and Sarkar, 2019). MERSCoV causes injury to the upper respiratory system leading to respiratory disease of severe form. MERSCoV shows symptoms same as SARS coronavirus.

Coronavirus as a pandemic

Recently at the end of 2019, a new disease was found in Wuhan, China. This disease was diagnosed to be caused by a new type of coronavirus and affected almost the whole world. This new type of

coronavirus is also of the beta subgroup. Chinese researchers named this novel virus as 2019-nCov (2019 novel coronavirus) or Wuhan-coronavirus. The ICTV, i.e. "International Committee on Taxonomy of Viruses" called these viruses as SARS-CoV-2. Nevertheless, to avoid misunderstanding with SARS the World Health Organization (WHO) names it as COVID-19 virus when interacting with the media (Shereen *et al.*, 2020).

WHO defined COVID-19 positive cases as "a person shown by laboratory testing to be infected with the virus, irrespective of clinical signs and symptoms". Still, a few cases in China showed symptoms of COVID-19 but were tested negative for the same. On 11th of March 2020, the WHO proclaimed that the spread of COVID-19 is a pandemic: as many countries around the world showed transmission of this virus between people of an outbreak causing disease or death.

This disease is new globally as well as in India. This has disturbed people's mind. There are various rumours, photos, videos, news being spread around about coronavirus in Indian society which causes panic in people's mind. It is the need of society to know myths and facts about coronavirus to reduce the panic and take the proper precautionary actions for our safety against the coronavirus. Thus this article aims to bust myths and present the facts to the common people.

Myths and facts of covid-19

Myth- "A traditional or legendary story, usually concerning some being or hero or event, with or without a determinable basis of fact or a natural explanation, especially one that is concerned with deities or demigods and explains some practise rite or phenomenon of nature".

Fact- "Something that exists".

Myth- Exposing yourself to the sun or to temperatures higher than 25 degrees Celsius prevent the coronavirus disease (COVID-19).

Fact- According to the World Health Organization, you can catch COVID-19, no matter how sunny or hot the weather is. Countries having intensive heat also have COVID-19 positive cases. There is no correlation between temperature variation and coronavirus spread. To be protected, you should clean your hands & should not touch your mouth, eyes & nose.

Myth - if you are infected with coronavirus, you will have it for a lifetime, or there is no recovery for coronavirus infected person.

Fact- Mostly persons who are infected with COVID-19 can get better & eradicate the virus from their

bodies. If you catch the disease, make sure you treat your symptoms. If a person shows symptoms of COVID-19, they should seek medical care immediately and should be done testing for the same. Most people can get cured only by supportive care.

Myth - if you can keep your breath on hold for more than 10 seconds without any feeling of uneasiness or coughing mean that you can never be infected with coronavirus disease (COVID-19) or any disease of the lung.

Fact - The best-shared symptoms of COVID-19 are dry-cough, tiredness and high temperature. Few people may also show symptoms of severe forms of the disease, e.g., pneumonia. The best technique to check if you are infected with COVID-19 disease is by doing a laboratory test. Doing breathing exercise will not give us confirmation about being infected with coronavirus or not.

Myth - Consumption of alcohol does not protect you against COVID-19 and can be hazardous.

Fact - Drinking excessive alcohol can increase higher your possibility of causing health problems.

Myth - Hot and humid climates do not allow COVID-19 virus to spread.

Fact - No, it is seen that the COVID-19 virus can spread in all areas, which include areas with hot & humid climate. Irrespective of the weather, you should use protection measures and get yourself tested if you are living in an area affected with COVID-19 or travel to any area having COVID-19 cases.

Myth - Icy climate and snow will not kill the new COVID-19 virus.

Fact - Evidence has not been found proving that icy climate can destroy the new COVID-19 virus. 36.5°C - 37°C is the average human body temperature which does not get affected by external temperature or weather. The greatest method to defend yourself is by cleaning your hands with hand sanitizer having alcohol or wash them with soap or detergent and water for more than 20 seconds & maintaining proper hygiene.

Myth - Having a hot water bath will not prevent you from getting COVID-19 disease.

Fact - Having hot water bath will not protect you from getting COVID-19 disease. Essentially, taking a bath with very hot water can be harmful, as it can burn your skin. The most excellent method to defend yourself is by cleaning your hands and maintaining proper hygiene. This will help by eliminating viruses on your hands surface and avoid touching your eyes, mouth, and nose.

Myth - Mosquito bites can transmit new COVID-19 diseases.

Fact - Evidence has not been found showing that the COVID-19 virus can spread by mosquitoes bite. COVID-19 is a respiratory-virus which transmits primarily over droplets produced when the person infected sneezes or coughs, or over saliva droplets or nasal discharge. To be protected, keep your hands clean and keep a distance from anyone who is coughing and sneezing or showing symptoms of COVID-19.

Myth - Can hand dryers in the effect of killing the new COVID-19 virus?

Fact - No. Hand dryers do not help in destroy the new COVID-19 virus. The greatest method to defend your-self is by cleaning your hands with and maintaining proper hygiene. Once you have washed your hand dry them carefully using tissue paper or a warm air dryer.

Myth - Can ultraviolet disinfection kill COVID-19?

Fact - No, ultraviolet disinfection lamps must not be used to disinfect hands or other areas like skin as they can cause skin irritation.

Myth - Can thermal scanners help to identify persons infected with the new COVID-19?

Fact - Thermal scanners help in sensing people who are having a high temperature, which is one of the symptoms of coronavirus. Though, detection of persons who are infected with COVID-19 but do not have a fever cannot be done as it takes around 2 - 10 days for people who are diseased to show symptoms of fever.

Myth - Can the application of chlorine or alcohol on your body help to destroy or kill the new COVID-19 virus?

Fact - No. Application of chlorine or alcohol on your body helps to will not destroy or kill the new COVID-19 virus, which has by now entered your body. Application of such materials can cause harm to clothes, eyes, mouth, skin etc. we can use both chlorine and alcohol for disinfecting of surfaces. Still, it should be done under the suitable recommendation of doctors.

Myth - Does pneumonia vaccines defend you against the new COVID-19?

Fact - No. Pneumonia vaccines, like pneumococcal vaccine & Haemophilus influenza type B-vaccine, are unable to give us protection against coronavirus. Research is going on to develop vaccines against COVID-19, which is supported by the World Health Organization.

Myth - Can be cleaning your nose regularly with saline help protect you from contamination with the new COVID-19?

Fact - No proof has been found that cleaning your nose frequently with saline help protect you from infection with the new COVID-19. But there is very little evidence that cleaning your nose frequently with saline can cause people to get well faster from the common cold. Still, cleaning your nose regularly with saline has not proven to prevent infections of the respiratory system.

Myth - Can the consumption of garlic help us avoid infection with the new COVID-19 virus?

Fact - Garlic has few antimicrobial properties and is considered healthy for consumption. Though, there is no proof that from the present burst, that consumption of garlic has protected people from the new COVID-19 virus.

Myth - Does older aged people are affected by COVID-19, or even younger aged people can get affected?

Fact - Individuals of all ages have equal chances to get infected with new coronavirus (2019-nCoV). But elderly persons and persons having medical conditions like diabetes, asthma, and disease of the heart found to be most susceptible to becoming severely affected by the virus.

Myth -Do antibiotics provide us with protection against COVID-19?

Fact - No, antibiotics only work against bacteria and not viruses. COVID-19 is a new virus and, hence, antibiotics will not provide any prevention or treatment against this virus. Though, a person infected with COVID-19 may be receiving antibiotics because co-infection with bacterial is possible.

Myth - Any particular medicines to prevent or treat the new COVID-19?

Fact - Till today, there is no particular medicine which can prevent or treat the new 2019-nCoV. Though the person affected with COVID-19 receive symptomatic treatment, and a person who is severely affected will receive optimized supportive care.

Myth - COVID-19 virus is just another flu?

Fact - COVID-19 shows flu-like symptoms, like pain, high temperature, & cough. Likewise, both COVID-19 & flu are categorized as mild, moderate, severe or fatal. Both can cause pneumonia. However, COVID-19 is more severe than flu. The mortality rate of COVID-19 is around 1% and 3%. Researches are going on to know the exact mortality rate. **Myth**- Can cats and dogs transmit coronavirus?

Myth - Can cats and dogs transmit coronavirus?

Fact - Presently, we have significantly less evidence that COVID-19 can be infectious to dogs and cats. Though, in Hong Kong, a dog whose master had COVID-19 developed COVID-19 infection. But this dog did not show any symptoms. A debit is going on the significance of this case. For now, Prof. Jonathan Ball, "Professor of Molecular Virology at the University of Nottingham" in the United Kingdom, said that "they have to differentiate between real infection and just detecting the presence of the virus". "It is questionable how relevant it is to the human outbreak, as most of the global outbreak has been driven by human-to-human transmission. It is doubtful that coronavirus could spread to another dog or a human because of the low levels of this virus. The real driver of the outbreak is humans".

Myth - Can protection be provided against COVID-19 by using Face masks?

Fact - Health-care providers use surgical face masks, which adopt firmly around their face and guard them against infection. One time use masks or cloth face mask are unable to offer such protection, as they are unable to halt minute viral particles from entering in. Though, this mask can help stop the transmission of droplets. CDC, i.e. "The Centers for Disease Control and Prevention" claimed that persons should wear cloth face masks or disposable mask in public places where it can be challenging for us to keep a distance of one meter from each-others. It is essential to wear a mask and follow the protocol like not touching the mask and face after wearing a mask. Even after wearing a mask, it is essential to practice social distancing.

Myth - Common cold mutated to form COVID-19?

Facts - There are various type of coronaviruses, the similarity in all them are they proteins on their outer surface, which is a spike or crown-shaped. Few of these coronaviruses can directly infect humans, causing the common cold. Both MERS, i.e. "Middle East respiratory syndrome" & SARS "severe acute respiratory syndrome" originated in animals and transmitted into humans.

Myth - You need to be at least for ten minutes with COVID-19 infected individual to catch the virus.

Facts - The more time you spend with COVID-19 infected person higher the chances you will be infected with the same if proper precautions not followed. It is possible that transmission of the virus from an infected person to you can occur in less than 10 minutes.

Myth - Bleach & gargling can defend you from COVID-19?

Fact - No evidence has been found that gargling with bleach will defend you from COVID-19 virus. Bleach is a corrosive & can cause health damage.

Myth - Packages from China can transmit COVID-19?

Fact - From the previous research scientist said that same as "SARS" and "MERS" even COVID-19 virus cannot survive on the surface of packages and letters for a longer duration of time. The CDC explained that "because of poor survivability of these coronaviruses on surfaces, there is likely shallow risk of spread from products or packaging that are shipped for days or weeks at ambient temperatures." Myth - Home-based therapies can treat & protect COVID-19.

Myth - Home-based therapies can treat & protect COVID-19.

Fact - No, Home-based therapies are unable to protect COVID-19, which include, sesame oil, essential oils, silver colloid, vitamin C, burning sage, fish tank cleaner & garlic consumption. The best way to protect your self is by keeping yourself clean and avoiding visiting places where there are people affected with COVID-19.

Myth - Can COVID-19 transmit through urine and faeces?

Fact - It is unlikely that this is true, but the panel is presently out. As per Prof. John Edmunds from "London School of Hygiene & Tropical Medicine" in the U.K. "It isn't a very pleasant thought, but every time you swallow, you swallow mucus from your upper respiratory tract. This is an important defensive mechanism. This sweeps viruses and bacteria down into our gut where they are denatured in the acid conditions of our stomachs." With modern, very highly sensitive detection mechanisms, we can detect these viruses in faeces. Usually, viruses we can detect in this way are no face sections to others, as our guts have destroyed them."

Myth - The COVID-19 virus was invented in a research laboratory in China?

Fact - The COVID-19 virus was invented in a research laboratory in China is an internet rumour. Still, there is no evidence that this is true. It has been demonstrated that COVID-19 virus is a natural creation of evolution. Some scientist trust that COVID-19 virus may have transferred from animals to humans. Others believe that COVID-19 might have transferred from bats to us, same as SARS.

Myth - The occurrence of COVID-19 as persons consumed bat soup.

Fact - Though researchers are assured that COVID-19 originated in animals, but there is no proof that it

originated from bat soup.

Myth - 5G services COVID-19 spread

Fact - As the technology improved, some countries are progressing out 5G "fifth-generation" mobile-phone technology. Several conspiracy theories seem that this technology sets foot in the spread of COVID-19 virus.

Some of the current theories stated that development of 5G is accountable for the rapid blowout of COVID-19 around the world.

According to a paper published in 2011 by A. Widom and J. Swain et al. claimed that 5G could help bacteria transmit. According to this study, the researchers claimed that "bacteria can communicate via electromagnetic signals". Nevertheless, professionals disagreed this theory saying COVID-19 is a virus, not a bacteria so it cannot be transmitted by 5G mobile technology (Widom et al., 2011).

These theories came as Wuhan was in the first few cities in china to do trial 5G. Though, "Beijing, Shanghai, and Guangzhou" also rolled out 5G at the same time. It is also being seen that COVID-19 has considerably affected countries having no 5G coverage, such as Iran.

Myth - Breastfeeding should not be done if you are infected with COVID-19.

Fact - As per WHO, women with COVID-19 should be supported with breastfeeding safely, hold her newborn skin - to -skin and share a room with her baby. The baby who has already been exposed to the coronavirus by the mother will benefit most from direct, continued breastfeeding. This is because breast milk provides protection against many illnesses and strengthen the baby's immune function.

Myth - Drinking water can prevent COVID-19.

Fact - A post circulating on social media claims that drinking water every 15 minutes will wash down any virus in your throat into your stomach, where the acid will kill it. However, there is no scientific evidence that this works against any respiratory virus. But drinking water keeps you hydrated.

Myth - Drinking silver can kill strains of coronavirus.

Fact - An American televangelist has falsely claimed colloidal silver, which is particles of the metal suspended in a liquid, can kill some strains of coronavirus in 12 hours and can boost the immune system. However, there is no evidence that drinking silver helps; instead, it can lead to kidney damage and seizures. Unlike iron and zinc, silver is not a metal that has any function in the human body.

Myth - Gargling with warm water with salt helps eliminate coronavirus.

Fact - A message calming gargling with warm water and salt or vinegar eliminates coronavirus has gone viral on social media. Government Agency Press Information Bureau (PBI) confirmed that it is fake news, saying drinking and gargling with warm water mixed with vinegar and salt cannot help ward off coronavirus.

CONCLUSIONS

COVID 19 in a new virus globally for which researches are still going on for its treatment. Time alone will tell how the virus will impact our lives here in India. We need to verify myths spreading through social media and keep our self-ready by knowing the facts so that we can protect our self in a better way. People must prevent COVID 19 at a personal level. It has become challenging for us to stop the spread of COVID 19. Appropriate action in individual communities and countries can benefit the entire world.

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