

COVID 19: Myths and Facts

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ABSTRACT

The clinical spectrum of COVID-19 varies from being asymptomatic to clinical conditions characterized by respiratory failure. Management of the disease is mostly supportive in the form of oxygen supplementation, non-invasive ventilation and in severe cases, mechanical ventilation. There is no specific antiviral treatment available nor is there any vaccine available. The most important step to curb this disease is prevention of the spread by social distancing and strict hand hygiene. This review article describes various myths and facts about COVID-19 and various preventive measures which should be followed to limit the spread of this disease.

Keywords-- COVID-19, corona virus, social distancing, mask, hand washing

INTRODUCTION

A pandemic is a disease epidemic which has spread across a large region to include multiple continents or has attained worldwide proportions. Corona virus infection has attained global proportions and has qualified itself to be labelled as a pandemic. Corona Virus disease causes a form of pneumonia and was first detected in Wuhan, China. It was first reported to the WHO Country Office in China on 31 December 2019. As they were unable to identify the causative agent, these first cases were classified as "pneumonia of unknown etiology which is now attributed to a novel virus belonging to the coronavirus (CoV) family." "COVID-19" is the acronym of "coronavirus disease 2019" and the causative virus seems to be very contagious and has quickly spread globally. As on 31 March 2020, there were 7,54,948 confirmed cases, 36,571 confirmed deaths and 203 countries affected by Coronavirus as per WHO statistics report.

TRANSMISSION

Because the first cases of the CoVID-19 disease were linked to direct exposure to the Huanan Seafood Wholesale Market of Wuhan, the animal-to-human transmission was presumed as the main mechanism. Subsequent cases were not associated with this exposure mechanism hence it

was concluded that the virus could also be transmitted from human-to-human, and symptomatic people are the most frequent source of COVID-19 spread. The transmission is believed to occur through respiratory droplets from coughing and sneezing. Aerosol transmission is also possible in case of protracted exposure to elevated aerosol concentrations in closed spaces. Analysis of data related to the spread of SARS-CoV-2 in China seems to indicate that close contact between individuals is necessary. The spread, in fact, is primarily limited to family members, healthcare professionals, and other close contacts.

PRESENTATION

The clinical spectrum of COVID-19 varies from being asymptomatic to clinical conditions characterized by respiratory failure that necessitates mechanical ventilation and support in an intensive care unit, to sepsis, septic shock, and multiple organ dysfunction syndrome (MODS). The most frequent manifestations are fever, malaise, dry cough, and dyspnoea.

Patients with mild or uncomplicated illness may present with symptoms of an upper respiratory tract viral infection, including mild fever, cough, sore throat, nasal congestion, malaise, headache, bodyache or malaise. Some patients may have moderate illness and may have respiratory symptoms such as cough and shortness of breath. Severe illness may present as fever associated with severe dyspnoea, respiratory distress, tachypnoea, and hypoxia.

MANAGEMENT

The first therapeutic approach of patients with severe illness is oxygen therapy. The next step if the patient doesn't respond to oxygen supplementation is Non-invasive ventilation (NIV) followed by intubation and invasive mechanical ventilation.

There is no specific antiviral treatment recommended for COVID-19 nor is any vaccine available. The treatment is symptomatic and oxygen therapy represents supportive treatment for patients with severe infection. Mechanical ventilation may be necessary in cases of respiratory

failure refractory to oxygen therapy whereas hemodynamic support is essential for managing septic shock.

WHO SHOULD BE TESTED

Anyone who has had close contact with a patient with laboratory-confirmed COVID-19 within 14 days of onset of symptoms or a history of travel from affected geographical areas (presently China, Italy, Iran, Japan, and South Korea).

PREVENTION

Preventive measures are strategy to limit the spread of cases. Preventive measures recommended by WHO are as follows:

- Avoid close contact with subjects suffering from acute respiratory infections.
- Wash your hands frequently, especially after contact with infected people or their environment.
- Avoid unprotected contact with farm or wild animals.
- People with symptoms of acute airway infection should keep their distance, cover coughs or sneezes with disposable tissues or clothes and wash their hands.
- Strengthen, in particular, in emergency medicine departments, the application of strict hygiene measures for the prevention and control of infections.
- Individuals that are immune-compromised should avoid public gatherings.

The most important strategy to undertake is to frequently wash hands and use hand sanitizer. Healthcare workers caring for infected individuals should utilize contact and airborne precautions to include PPE such as N95 masks, eye protection, gowns, and gloves to prevent transmission of the pathogen.

PROGNOSIS

Preliminary data suggests the reported death rate ranges from 1% to 2% depending on the immune status, genetic make up and country of origin. The majority of the fatalities have occurred in patients over 50 years of age who have an immunocompromised status. Young children appear to be mildly infected but may serve as a vector for additional transmission.

WHO IS AT HIGH RISK

Individuals at extremes of ages and those that are immunocompromised are at most significant risk. All health care workers including

paramedical staff and non technical staff working in health care facilities are at risk of being infected

WHO ALL NEED TO WEAR A MASK

Everyone need not wear a mask. You may wear a mask under the following circumstances:

- You have symptoms in the form of cough, fever or difficulty in breathing.
- You are caring for a COVID-19 suspect/confirmed patient.
- You are a health care worker attending to patients with respiratory symptoms.

Wearing a mask generally prevents spread of infection from one who is wearing the mask to others present in the vicinity.

Disposal of used masks

Used masks may be disposed off safely in a sealed envelope in a trash bin or by burning or burial to prevent spread of infection to other people.

Hand washing

Hand hygiene is one of the essential means to prevent the spread of infection. Semmelweis highlighted that cleansing contaminated hands with antiseptic products before and after contact with patients may reduce health care-associated infections [1]. Hand hygiene has been considered the leading measure to prevent spread of infections [2]. Hand washing with a foaming soap and copious amounts of water for atleast 20 seconds has been found to be effective and use of an alcohol-based hand rub preparation for hand hygiene has been defined as the standard of care³. According to the World Health Organization (WHO), "an alcohol-containing preparation (liquid, gel or foam) designed for application to the hands inactivates microorganisms and/or temporarily suppresses their growth. Such preparations may contain one or more types of alcohol, other active ingredients with excipients, and humectants" and are very effective for quickly destroying many pathogens by the action of the aqueous alcohol solution without the need for water or drying with towels [3].

WHY ITALY

Italy despite having world class health care infrastructure, has been badly hit by COVID-19. One of the reasons cited is the demographic make-up of the country which predominantly constitutes elderly people who somehow are at increased risk to the infection, may be because of their immune-compromised status.

WHY NOT INDIA AND AFRICA

India and Africa despite being densely populated, have been less severely affected by this deadly virus. One of the reasons cited is the prevalence of malaria which may have provided herd immunity.

Screening

Screening is defined as the presumptive identification of an unrecognized disease in an apparently healthy, asymptomatic population by means of tests, examinations or other procedures that can be applied rapidly and easily to the target population. Infrared Forehead Thermometer Gun measures body temperature accurately to screen people for fever, one of the symptoms of coronavirus infection without any touch to avoid getting infection.

Quarantine

Quarantine is a restriction on the movement of people which is intended to prevent the spread of a communicable disease.

Self-quarantine

Self-quarantine means staying at your home, hotel room or provided accommodation, and not leaving for the period you are required to quarantine and not allowing any visitors.

Isolation

In health care facilities, isolation represents one of several measures that can be taken to implement infection control: the prevention of contagious diseases from being spread from a patient to other patients, health care workers, and visitors, or from outsiders to a particular patient.

Social distancing

Social distancing is a non-pharmaceutical infection prevention and control intervention implemented to avoid/decrease contact between those who are infected with a disease causing pathogen and those who are not, to stop or slow down the rate and extent of disease transmission in a community. Preventing crowds helps in social distancing and maintaining a distance of at least 1 metre (3 feet) is recommended.

Why 21 days

The incubation period (time from exposure to the development of symptoms) of the virus is estimated to be between 0 and 24 days. Understanding the incubation period is very

important for health authorities as it allows them to introduce more effective quarantine systems for people suspected of carrying the virus, as a way of controlling and hopefully preventing the spread of the virus.

Curfew

A curfew is an order issued by public authorities specifying a time during which individuals are required to return to and stay at their homes.

Janta curfew

Janata curfew means for the public, curfew imposed by the public on its own. Prime minister Mr. Narendra Modi appealed to the public to stay home and take part in a 'Janata Curfew' on 22nd March in view of the coronavirus outbreak.

Lock down

A lockdown is an emergency protocol initiated by the state that usually prevents people from leaving an area. A full lockdown usually means that people must stay where they are and may not move.

Breaking the chain of infection

The chain of infection is made up of the pathogen, reservoir, portal of exit, modes of transmission, portal of entry and the host. Hand washing is the number one way to break the chain of infection.

Stay home, stay safe

Government of India imposed measures "never seen before either in peace or war" and persuaded 130 billion Indians to follow advise to stay home, stay safe and help save lives.

Media hype

The language being used in the media to describe the outbreak is undoubtedly contributing to the mass hysteria about the disease. This media hype about the disease has led the retailers around the world to ration toilet paper and pharmacies black market masks and hand sanitizers. The relentless dominance of the coronavirus story in the media and the alarmist rhetoric of the stories has fuelled panic and anxiety about the disease in the general public. One of the reasons why there is obviously so much fear and anxiety is because it's a new disease and there is a general feeling of 'the fear of unknown'. In fact they have converted this pandemic into an infodemic: an over-abundance of information.

Economic pandemic

COVID-19 has been associated with a deep and rapid economic crisis much worse than economic meltdowns in the past. The shock to the global economy from Covid-19 has been faster and more severe than the 2008 global financial crisis and even the Great Depression.

How difficult is it to stay home

It is really difficult for the male species to stay at home. They are really finding it difficult to remain confined to their homes despite a strict lock down imposed by the administrative authorities. Anything imposed is difficult to implement. Janta curfew was better followed probably because it was voluntary compared to the lock down which the police is finding difficult to implement. The irony is that the government has an equally difficult task at hand when it has to plead to public to go out and vote on Election day as imposing a curfew during the Corona lockdown

Contact with Pets

As per WHO, there is no evidence to suggest that pets such as dogs and cats have infected humans with Covid-19.

Infection transmission by mosquito bite

There is no study to suggest that COVID-19 are spreads by mosquito as for a virus to pass to a person through a mosquito bite, the virus must be able to replicate within the mosquito.

Chicken Consumption

It is basically an animal virus and the Food Safety and Standards Authority of India (FSSAI) has confirmed that there is no scientific evidence to show that coronavirus spreads through eating chicken, mutton and seafood.

E-commerce

Corona virus remains active, stable and infectious for about 72 hours on cardboard and plastic. Hence your courier delivery from Amazon or Flipkart, your favourite dish you ordered from Zomato or Swiggy, milk or grocery you ordered online may provide corona virus a window of opportunity to get inside your house.

Religious Gatherings

Religious gatherings and services are being suspended across the country because closely-knit faith groups and pilgrims have

emerged as major spreaders of the coronavirus disease.

Greeting the Indian way

In an effort to stop the spread of the coronavirus, more people, including global leaders, are using the Indian greeting of Namaste which can never cause a contagion whereas the English greetings or Muslim embracing can.

CONCLUSION

Corona virus disease is a rapidly spreading and a highly infectious disease with low mortality rates. Social distancing is an important measure being adopted world wide to delay the spread of the disease. Namaste, the Indian way to exchange pleasantries has been adopted by global leaders and diplomats and has been named as non contact diplomacy in these tough times. Governments all over have implemented lockdowns to delay the spread of the disease so that the infection curve is flattened.

The COVID-19 pandemic has been associated with an infodemic and economic pandemic.

Hand washing is the most important measure to be adopted to prevent the spread of the disease.

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