

Letter to the Editor

Emerging pandemic COVID-19: myths and facts

Sir,

The first theory which has established itself across the world is that COVID-19 is a “new virus”. It is rather wise to call it a “new strain” of a pre-existing coronavirus since history clearly denotes cases of coronavirus surfacing the world in past years beginning as early as mid-1960s.^{1,2} Including this novel strain of the virus, seven strains of coronaviruses have been commonly associated with human infections. Coronaviruses are primarily respiratory viruses causing infections ranging from mild to severe involvement of the respiratory tract. The common cold strains of coronavirus are 229E alpha coronavirus, NL63 alpha coronavirus, OC43 beta coronavirus and HKU1 beta coronavirus.³ The acute respiratory distress causing strains are severe acute respiratory syndrome (SARS) beta CoV causing SARS, MERS beta CoV causing Middle East respiratory syndrome (MERS) and the very novel COVID-19. Researchers and molecular biologists have confirmed phylogenetic relationship of COVID-19 with a 2015 Chinese bat strain of SARS CoV.⁴ Mutations to the surface protein as well as nucleocapsid proteins were demonstrated. These two mutations predicts the characteristics such as higher ability to infect as well as enhanced pathogenicity of COVID-19 as compared to older SARS strain. For this reason and with similarities in clinical presentation the novel strain has been named as SARS-CoV-2.⁵

CLINICAL IMPLICATIONS OF COVID-19

An initial study on laboratory confirmed COVID-19 cases published in The New England Journal of Medicine has been reviewed and findings are summarized.^{6,7}

Age group: The median age group of affected individuals was 47 years with a male preponderance. Children are relatively spared with almost negligible cases of children below 15 years of age.

Case fatality: The case fatality rate within China has been estimated as 1.4-2%.

Symptomatology: The most common symptoms during presentation were fever (88.7%) and cough (67.8%). Less than 50% reported sputum production and fatigue; diarrhoea was uncommon.

Transmissibility: Risk of transmission is pretty low as compared with SARS as well as other emerging viruses.

Rate of transmission was estimated to be 1.5-3.5 form infected individuals.⁸ Most individuals were hospitalized with good recovery without requiring ventilator support.

Comorbidity association: Severity of illness was found to be more in patients with a comorbid condition. Moreover, the presence of any coexisting illness was more common among patients with severe disease than among those with nonsevere disease (38.7% vs. 21.0%).

Diagnostic findings: On admission majority of individuals had ground glass opacity on chest computed tomography (CT) (56.4%). Hemogram in majority of about 83.2% showed lymphocytopenia.

MYTHS VERSUS FACTS







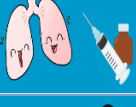







Most of the myths related to COVID-19 have been addressed in the WHO's official website. The list of myths addressed by the WHO are summarized (Table 1).

THE WAY FORWARD

The Government in coordination with the WHO has taken stringent precautions in early screening (thermal monitoring), diagnosis, contact tracing and isolation of suspected patients. Clear instructions and helpline numbers are being circulated to the general public. Media should be controlled and supervised on information being released day in and day out thereby curtailing false alarms being released.

Until an antiviral if approved by WHO for treating COVID-19, it is a wait and watch scenario. Preparedness of Government as well as private healthcare facilities in ensuring adequate stock of masks, hand sanitizers and other Personal Protective Equipment is to be given priority. Judicious use of surgical masks is mandatory and is the need of the hour since most countries report shortage of the same. WHO has given strict recommendations on avoiding misuse of masks by individuals to prevent shortage. Other major infection control practices include hand hygiene, frequent environmental cleaning and disinfection as well as cough etiquette should be reinforced and monitored for compliance. Since global transmission has occurred due to extensive travel, people should be advised to avoid unnecessary travel especially to countries which report local transmission of this virus.

Table 1: Myths and clarification of myths related to SARS CoV 2.⁹

Questions / myths	Answer	Facts
 Are hand dryers effective in killing the virus?	No	Frequently wash hands and/or clean hands with alcohol-based hand rub. Once cleaned dry them thoroughly by using paper towel or warm hand dryer.
 Can ultraviolet (UV) disinfection lamp kill the virus?	No	UV lamps should NOT be used to sterilize hands or other areas of the skin as UV radiation can cause skin irritation.
 How effective are thermal scanners in detecting people infected with the virus?	Not always	Thermal scanners cannot detect those infected but do not have fever. This is because it takes 2-14 days before people who are infected to become sick and develop fever.
 Can spraying alcohol or chlorine all over the body kill the virus?	No	Spraying such substances can be harmful to clothes or mucous membranes. Beware that both alcohol and chlorine <u>can be</u> useful ONLY to disinfect surfaces.
 Is it safe to receive a letter or a package from China?	Yes	It is safe. People receiving packages from China are not at risk for contracting the virus. Previous analysis has shown that the coronaviruses do not survive long on objects, such as letters or packages
 Can pets at home spread the virus?	No	At present there is no evidence that companion animals/pets such as dogs or cats can be infected with this virus. However, it is best to wash hands with soap and water after contact with pets.
 Do vaccines against pneumonia protect against the novel Coronavirus?	No	Vaccines against pneumonia, such as pneumococcal vaccine or Haemophilus influenza type B (Hib), influenza vaccine do not provide protection against the new coronavirus.
 Can regularly rinsing your nose with saline help prevent infection with the virus?	No	There is no evidence that regular rinsing the nose with saline has protected people from infection with the new coronavirus.
 Can gargling mouthwash protect from infection from this virus?	No	There is no evidence that using mouthwash will protect from infection from the new coronavirus.
 Can eating garlic help prevent infection with this virus?	No	Although garlic is known for its antioxidant properties, there is no evidence from the current outbreak that eating garlic has protected people from the new coronavirus.
 Does putting on sesame oil block the entry of new CoV into the body?	No	Sesame oil does not kill the new coronavirus
 Does the new coronavirus affect older people, or are younger people also susceptible?	People of all ages can be infected	Older people, and people with pre-existing medical conditions, such as asthma, diabetes, heart disease appear to be more vulnerable to becoming severely sick with this virus. It is advised that people of all ages take proper precautions such as good hand and respiratory hygiene.
 Are antibiotics effective in preventing and treating this virus?	No	Antibiotics do not work against viruses, only bacteria. The new coronavirus is a virus, therefore, antibiotics should not be used as a means to prevention or treatment. However, if hospitalized for the COVID-19, antibiotics can be used to treat bacterial co-infections.
 Are there any specific medicines to prevent or treat this virus?	No	To date, there is no specific medicine recommended to prevent or treat the new coronavirus. Symptomatic and supportive care is the option. Some specific treatments are under investigation, and will be tested through clinic trial.

CONCLUSION

The most important need at this moment is to avoid panic and spread of unnecessary information. As healthcare professionals it is imperative to conduct awareness sessions and ensure calm in the community. Stringent infection control practices are the best way for containing local transmission of virus in the society. Training and re-training healthcare workers as well as the general public can prove to be beneficial at this moment of time. Visual display of respiratory hygiene/cough etiquette, hand hygiene steps and moments will definitely help in controlling this outbreak. Sale of surgical masks as well as N95 masks can be banned or restricted for sale to the general public who are not at risk.

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