

Exploring the Presence of Animal Origin in the Causation of Corona Virus Disease 2019 Outbreak and Strategies to Prevent Acquisition of the Infection

Dear Editor,

The Corona Virus Disease-2019 (COVID-19) outbreak has created an alarm across the globe and has raised serious concerns about the ability of the healthcare delivery system in responding to a disease outbreak. This is primarily because of the caseload, which by 21 February 2020 was 76769 and the incidence of the disease, wherein on a single day, 1021 new cases of the disease were reported worldwide.^[1] At the same time, 1.6% of the reported cases has been reported outside China, and these nations have together accounted for 8 disease-related deaths.^[1]

The containment of the infection has been challenging because of the novel nature of the causative virus and the fact that we are still not aware about the various modes of disease transmission and other agent-related attributes. The causative virus has been identified as Sudden Acute Respiratory Syndrome-Coronavirus-2 (SARS-CoV-2), and it has been presumed that the most probable ecological reservoir of the virus has been bats.^[2] Further, it has been presumed that the virus entered into humans through an intermediate animal host, but the exact life cycle is yet to be conclusively proven and a lot of research needs to be done.^[2]

The evidence obtained from the earlier outbreaks caused by viruses from the similar family has shown that cats and camels were the intermediate hosts for the transmission of infection to human in 2002 (China) and 2016 (Saudi Arabia), respectively. For the current ongoing outbreak, it has been hypothesized that the primary source of infection would have been a live animal from the market and then subsequently human-to-human has started through airborne route. Even though, no food consumption-related transmission of the virus occurred in the earlier coronaviruses outbreaks; nevertheless, the possibility of the survival of the virus on the food items which are being traded internationally cannot be ruled out, especially knowing the fact that the coronaviruses are highly stable in the frozen state.^[1,2]

The need of the hour is that we must keep the food clean, cook it thoroughly, and ensure that raw food is kept separated from cooked food and is stored at safe temperatures. In addition, for own's safety, direct unprotected contacts with live animals or the surfaces where these animals are kept should be avoided in animal markets. At the same time, the consumption of raw or undercooked animal products (viz. raw meat or milk) has to be strictly avoided, and simultaneously these food items should be cautiously handled to avoid cross-contamination.^[1,2]

In conclusion, amidst uncertainty about the foodborne transmission of the 2019-novel Coronavirus, we have to

be really cautious in our approach toward live animals or raw animal products. It is ideal to adhere to standard food safety norms and ensure that all precautions are taken to avoid acquisition of infection from animals.

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Conflicts of interest

There are no conflicts of interest.

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