

ABSTRACT

Background: COVID-19 has been a catastrophe for the world. While the world has been busy finding the cure and debating the origin of the virus, there are already reported cases of transmission of the virus from human to animal such as cats, dogs, ferrets, minks, even lions and tigers at the zoo. This research provides the information of COVID-19 transmission route from human to animal, including the risk factors and the consequences of COVID-19 backward transmission which later on called as potential zoonanthroponosis.

Method: A scoping review had been done from online journal databases, Scopus, PubMed, Cochrane Library, and Google Scholar using keywords as inspired by WHO COVID-19 Global Literature on Coronavirus Disease. The articles were then being reviewed and analyzed based on six stages of scoping review. As part of the general knowledge for this study, news articles found on reliable site included.

Results: Fifty articles were eligible to be included in this study. Google Scholar has the most systems brought (85.9%). The Guardian online news site also reported the most COVID-19 human-to-animal transmission. SARS-CoV-2 human-to-animal transmission could occur due to the similarity of ACE2 receptors. Moreover, the most reported variant in animals infected were reported genomic sharing between infected humans (i.e., pet owner and zookeepers).

Conclusion: Animals could get transmitted SARS-CoV-2 from human via droplets by having close contact with COVID-19 patient, since the similarity of the ACE2 receptors that own by vary species. Interspecies disease transmission could be a major public health concern, especially with the possibility of secondary spillover or human-animal-human transmission that could lead to major outbreak. Close contacts between human and animals might increase the possibility of COVID-19 transmission.

Keywords: COVID-19; human to animal; scoping review; zoonanthroponosis