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The SARS-CoV-2 from the Humans to the Animals? A New Zoonotic Threat?

¿SARS-CoV-2 de Humanos a Animales? ¿Nueva amenaza de zoonosis?

The interesting Letter to the Editor sent by Cortés reminds us of the importance of the knowledge and the teaching of the zoonoses in the biomedical careers, especially under the “One Health” approach (1). It is in this context that the new discoveries threaten the already convulsed situation of many countries facing the SARS-CoV-2, which as of the April 7 has affected more than 1,400,000 people (confirmed cases) and causing more than 81,000 deaths around the world (2).

The scientists from China have recently diffused a pre publish manuscript about the possibility of transmission of the SARS-CoV-2, the causative agent of COVID-19, to ferrets and cats, in which it replicates efficiently, further pointing out that the transmission in cats is through respiratory droplets (3). These results support the previous researches in which these same animals were also found to have the ability to become infected and sick with human-like histology of the former coronavirus with epicenter also in China (SARS-CoV) (4,5).

The questions derived from these findings are multiple, mainly due to the ability of these animals to transmit the SARS-CoV-2 again to the humans and continue with the zoonotic cycle with the greatest difficulty in controlling the spread of the disease in these animals. Although the amount of inoculum in this experiment was higher than what usually happens in real life, there is previous evidence of cats infected in the previous SARS-CoV epidemic in Hong Kong, so these findings should be considered in the context to a pandemic such as we are experiencing it in the 2020.

Another important question is to know if there could be mutations of the original species in these hosts and to have newly an eighth species of coronavirus in humans transmitted from these animals again in the near future. It is hypothesized that the infection with the coronavirus causing the MERS, migrated from bats to camels more than 40 years ago and that sporadic outbreaks of the disease occur in the humans from that species of mammal, for which reason this disease should be studied this possibility in-depth (6).

Finally, these studies do nothing more than note the great need for research in the diseases whose reservoirs are the animals and the great impact it has on people suffering from the zoonoses (7).

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