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POSTER 151

COVID-19 in pets: susceptibility to infection and potencial pet-to-human transmission

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Resumo

Introduction: COVID-19 caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV- 2), is a major global public health emergency that has killed more than 6 million people worldwide (as of 11 March 2022) [1, 2]. Considering the evidence that this virus has crossed the interspecies barrier from animals to infect humans, also there is evidence that pets (dogs and cats) are susceptibility with COVID- 19 infected humans in close contact. This virus uses angiotensin-converting enzyme 2 (ACE2) as a receptor entry into humans and several animal species, suggesting a broad spectrum of hosts virus [2-5]. **Objectives:** In this study, the aim was to investigate the role of pets as reservoirs of SARS-CoV-2 or potential zoonotic transmission. **Methods:** The search of relevant articles was performed on Pubmed databases between February and March 2022, using the following keywords "COVID19", "Transmission", "Pets" and "Pets+ACE2+Spike". **Results:** Cats have been demonstrated more susceptible to airborne infection than dogs, demonstrating a more similar ACE2 sequence to human ACE2. Cats develop more frequently clinical signs and shed the virus over a prolonged period, infecting other cats [3, 5]. Clinical signs in dogs are rare and they not shed the virus in experimental conditions [4]. A major of dogs and cats reported as positive for SARS- CoV-2 resulted from close contact with infected humans/owners [3]. Currently, there is no evidence that infected pets are a source of infection for people or other pets, suggesting infection was only caused by human-to-animal transmission, suggesting a reverse zoonosis [2, 3]. **Conclusions:** One Health approach is needed to evaluate the infection in pets and potential transmission animal-to-human, since that pets are potential viral reservoirs of SARS-CoV-2. In addition, pets should be monitored continuously to prevent the potential spread of the virus for other animals, wild animals, and the environment.

Keywords: pets; transmission; SARS-CoV-2; ACE2; reverse zoonosis

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