ISSN 2692-5877
DOI: 10.46998/IJCMCR.2020.03.000059

International Journal of
Clinical Studies & Medical Case Reports

Letter to Editor

Pets and Cattle Testing and Movement Restriction in COVID-19 Control Strategies

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Received: July 18, 2020 Published: August 13, 2020

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Coronaviruses can infect both human and animals and thus have medical and veterinary significance [1]. Bat might be the potential reservoir and source of virus in the current pandemic, SARS-CoV-2 (On 5th April 2020 [2,3], the United States Department of Agriculture's (USDA) National Veterinary Services Laboratories screened one tiger positive for SARS-CoV-2 in the zoo at New York. Samples were obtained from this tiger and examined after many lions and tigers displayed signs of respiratory distress at the zoo [4]. According to the USDA report, a zoo employee was noticed to be responsible for the transmission of SARS-CoV-2 to the tiger. A study recently published has shown that SARS-CoV-2 uses human Angiotensin-converting enzyme 2 (ACE2) as cellular receptor during infection [5]. The comparative research of ACE2 sequence and structure across species, SARS-CoV-2 shows high binding capability to the receptor-binding domain (RBD) to Bovidae and Cricetidae ACE2. Therefore, Bovidae and Cricetidae might serve as favorite intermediate host for SARS-CoV-2 during its transmission to human [5]. SARS-CoV-2 also poorly replicate in dogs, pigs, chicken and ducks cells, however, ferrets and cats cellular machinery facilitate efficient replication of SARS-Co-2. Furthermore, an airborne and physical contact SARS-CoV-2 infection was also noticed in cats [6]. SARS-CoV-2 also has both anthroponosis and zoonotic ability. Dogs and Cats are most common domestic pets across the globe. Additionally, dogs are used as help to confine farm animals during grazing. This reflects that dogs and cats are the most human interacting animal and during this bell, the alarm that these animals might serve as carrier for SARS-Co-2 transmission during the current pandemic.

Some of the most complex human-animal contacts take place in occupational set-up. Animal workers handle many animals each day, which raises the chances of chemical, biological and physical dangers and recently, the outbreaks of a variety of diseases first appeared among animal handlers. In a report in the United States, more than 2 million people are engaged in various occupational settings with animals [7]. Globally, approximately 49% of the world's population is practicing agriculture, in which a major portion of people are involved in animal husbandry and animal-associated health hazards [8]. According to one report still many farmers are not enrolled in structured occupational health and safety services or may receive medical aid from health professionals who are unfamiliar with the occupational hazards affecting such employees even in both developing and developed countries [9]. Based, on data in the above published articles, we recommended that especial care is needed while handling pets and livestock. In this regard, veterinarians might be the best choice in the establishment of occupational safety and health plans for animal handlers against COVID19. This move towards increasing the bio-safety of animal staff highlights a public health threat that needs improved coordination and cooperation between providers of human health and animal health providers. Developments of instructive campaigns that focus general public or animal handlers in rural areas are suggested. Moreover, it is highly recommended that the pets and livestock at home should be closely observed for any clinical sign associated with SARS-CoV-2. In case of any suspected signs, the animal movement should be restricted until proper screening for COVID-19.

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DOI: *10.46998/IJCMCR.2020.03.000059*