

Brucellosis Taking Over Covid: An Emerging New Pandemic

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Abstract

COVID-19 caused by SARS-CoV2, which emerged in the city of Wuhan in December 2019 has shook the entire world. Millions have been reportedly infected with the gruesome virus which has claimed numerous lives and has no cure yet. However, this has brought attention to the increasingly spreading zoonoses. Lately, news of an outbreak of Brucellosis has spread on news and social media, leaving a wave of apprehension among the people around the world. Since, there is no vaccine for brucellosis, there is a need to be spread information about it among the masses to aid in its prevention. This paper sheds light on the characteristics of brucellosis and its potential to spread across the world.

Keywords: Brucellosis, COVID, Pandemic.

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INTRODUCTION

The recent ongoing COVID-19 pandemic has brought awareness among not just researchers but also the common man about the increasing number of diseases that are spreading from animals to humans. The first case of COVID-19 was reported in the city of Wuhan, Hubei province, China in late December of 2019 [1]. On 30th January, 2020, the World Health organization reported a declared a public health emergency of international concern over the global outbreak of this disease [2] and on 7th January 2020, they declared CoVID-19 a 'pandemic' [3].

COVID

The most common symptoms of COVID-19 are fever, dry cough, and tiredness. Other symptoms that are less common and may affect some patients include aches and pains, nasal congestion, headache, conjunctivitis, sore throat, diarrhea, loss of taste or smell or a rash on skin or discoloration of fingers or toes. These symptoms are usually mild and begin gradually. Some people become infected but only have very mild symptoms [4]. Genome sequencing of the virus was done and the virus was named a 2019-nCoV

(novel coronavirus). It had a structure similar to other coronaviruses, i.e. a 'spike protein envelope [5], which resembled the sun's aura or a crown, hence the name 'coronavirus'. Due to its nucleotide sequence similarity with the coronavirus that causes Severe Acute Respiratory Syndrome (SARS) called SARS-CoV, it was later renamed as SARS-CoV2. On 11th February, 2020, WHO named the disease caused by this virus as COVID-19 (Coronavirus Disease- 2019) [6] SARS-CoV2 can be transmitted from person to person in two ways, viz. direct transmission and indirect/ contact transmission. Direct transmission refers to transmission of the virus from the infected to healthy person by coughing, sneezing or droplet inhalation. In the context of COVID-19, airborne transmission may be possible in specific circumstances and settings in which procedures or support treatments that generate aerosols are performed; i.e., endotracheal intubation, bronchoscopy, open suctioning, administration of nebulized treatment, manual ventilation before intubation, turning the patient to the prone position, disconnecting the patient from the ventilator, non-invasive positive-pressure ventilation, tracheostomy, and cardiopulmonary resuscitation [7]. Indirect/ contact transmission is the spread of the virus from infected surfaces to oral, nasal or eye

mucous membranes [2, 8-10]. Guidelines to combat COVID-19 have been formulated by governments across the world to aid in prevention and to halt the spread of the dreaded disease. According to the WHO, COVID-19 can be prevented by washing hands regularly with soap and water or an alcohol-based hand rub, by maintaining a distance of at least 1 meter (3 feet) between people, wearing a mask in public, practicing respiratory hygiene and avoiding touching eyes, nose and mouth. Health authorities should be contacted if symptoms appear and people with minor symptoms are advised to self-isolate [11].

CROSS SPECIES TRANSMISSION

Since the early cases of the virus emerged from a seafood market of China, it is believed to be 'spilled over' from animals to humans. This has brought awareness among not just researchers but also the common man about the increasing number of diseases that are spreading from animals to humans. A few examples include SARS, Avian influenza A (H7N9), Ebola and many others. Recently, cases of spread of Brucellosis in China have been reported which is causing a wave of terror among the people. As per reports, thousands of people in Southwest China have tested to be positive for Brucellosis [12].

BRUCELLOSIS

Brucellosis is a bacterial disease caused by the *Brucella* species of bacteria. It affects cattle, sheep, goats, pigs and some other animals. The infection remains in the animal throughout its life. It can be transmitted to humans by direct contact with the infected animal or by drinking an infected animal's unpasteurized milk or consuming such milk products. It is also called "undulant" fever since it causes episodes of high fever, especially in the evening. Human-to-human transmission of brucellosis is rare. The clinical features of the disease include gradual onset of persistent fever, chills, sweating, headache, muscle pain, backache, joint pain, fatigue, weakness and weight loss. Human brucellosis can cause chronic debilitating illness. Complications may affect any of the organ systems. Incubation period of the disease may extend from one week to several months [13]. One of the common features of brucellosis in animals is abortion and in recent years it has been found that it can also cause obstetric complications in human pregnancies as well [14]. Brucellosis is not a new disease and is endemic in many countries in Asia including China, India, Indonesia and Thailand, and also in South America, the Mediterranean and the Middle East [13]. According to the World Health Organization (WHO) factsheet, although approximately 500 000 brucellosis cases are reported annually, the true incidence is always much higher than the reported number of cases [15]. Eventhough, it is not a new disease, its incidence is high, especially in parts of Asia and there is no vaccine has been developed for the disease yet. It can be prevented by Consume only pasteurized or boiled milk

and dairy products from cows, sheep, and goats, by thoroughly cooking meat before consumption and exercising care in handling and disposal of placenta, discharges and fetuses from cattle. Infection-control should be practiced extensively in areas endemic to the disease [13].

CONCLUSION

The COVID-19 pandemic has brought a great deal of much needed attention to zoonotic diseases. Although, human-to-human spread of brucellosis is rare, its incidence isn't. Since, there is no vaccine for brucellosis, there is a need to be spread information about it among the masses to aid in its prevention.

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