



Reflections on Wuhan Viral Pneumonia (2019-nCov)

Prof. Reza Nassiri

Departments of Pharmacology and Toxicology, and, Family and Community Medicine, Michigan State University, East Lansing, Michigan, USA.

Abstract:

The new decade started with a devastating outbreak of Wuhan viral pneumonia which is currently known as 2019-nCoV and questions about this new coronavirus remain. On December 31, 2019, a mystery cluster of pneumonia-like symptoms were reported in late 2019 from Wuhan Province in China. As the alarming confirmed cases as well as fatalities in China continues to rise, the global health community may face a pandemic potential of 2019-CoV. Although the epidemic is not declining as of February 2020, some insights can be reflected. The source of Wuhan viral pneumonia as reported by the Chinese health authorities, was presumably related to the Hunan Seafood Market in the city of Wuhan. Most recently, researchers at South China Agricultural University who tested more than 1000 samples from wild animals, reported a 99% match between the genome sequences of a virus found in pangolins and those in 2019-nCoV infected patients - such observation must be further validated. The Chinese scientists posted the full genome of the 2019-nCoV in GenBank. The genome sequences obtained from the nine infected patients (a cohort of 10 patients) were markedly similar and exhibited about 99% sequence homology within the patient cohort and was closely related (with 88% identity) to two bat-derived severe acute respiratory syndrome (SARS)-like coronaviruses. Analysis of the clinical specimens also showed the virus belongs to a subfamily of betacoronavirus. Further investigation revealed 2019-nCoV share same receptor with SARS-CoV, Angiotensin-converting enzyme-II. The virus appears to be more virulent in elderly and those with comorbid conditions. Although asymptomatic transmission has been reported in Germany, much questions remain about the biology of asymptomatic carriers since our current understanding of the mode(s) of transmission this novel virus is limited. It is now evident 2019-nCoV is the third epidemic of the coronavirus family in the past decades which has crossed species infecting



vulnerable and at-risk individuals.

Biography:

Dr. Nassiri is hematologist with fellowship training in biochemical pharmacology. He is currently Professor of Pharmacology and Toxicology, and, Family and Community Medicine, lecturer in Global Health, Infectious Diseases and Tropical Medicine at Michigan State University in East Lansing, Michigan, USA. He has served as director of the MSU Institute of International Health and as a former Associate Dean of Global Health. He currently works on global health issues particularly antibiotic resistance and viruses without borders.

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