



Effect of Covid-19 on India

Chander Mohan¹, Devika Malik², Savita Pandey³, Vinod Kumar^{4*}

¹⁻⁴ K R Mangalam University, Sohna Road, Gurugram, Haryana, India

Abstract

India has oldest civilizations, spanning a period of more than 4000 years, witnessing of the fusion of several customs and traditions and have the rich culture and heritage in the world. Apart from this, India has encountered many epidemics and pandemics situation such as Influenza, cholera, polio, dengue, smallpox etc. However we were eradicate most of them and others are disappears with time. Currently India facing sudden and rapid outbreaks named COVID-19, which was originated from China, on November 2019. The present review reported the current situation of COVID-19 in India and its effect on Indian economy. It also includes the past pandemic situation faced by India and pathology of COVID-19.

Keywords: pandemic situation, Covid-19, economy, SARS Co V2

Introduction

India is the second country of world having large population around more than 130 crores, and faced so many pandemic situations since 1871 (Cholera), in 1896 (Bombay Plague), 1918 (Influenza), 1970 (Polio), 1974 (Small Pox), 2003 (Dengue and SARS), 2006 (Chikungunya), 2009 (H1N1 Flu), 2015 (Indian Swine Flu), 2020 (COVID-19) and several others have been recorded throughout history, in some case we succeed eradicate and some are still present. However, some are the results of the malnutrition, lack of sanitation and lack of a proper public health system but some are uncommon and occurred sudden like COVID-19.

Past Pandemic Situation in India

India has suffered a variety of epidemics and pandemics such as influenza, cholera, dengue, smallpox and several others have been recorded throughout history. In year 1817, first epidemic condition named Chorea was identified in eastern and western coastal area of India, on 23 august 1817 by the civil surgeon Jessoré and caused around 40 to 50 million 'mortality in all over India. The second outbreak came in 1826 started from Bangle and affected north India from the river of the Bangle. It had a huge impact on Punjab after infecting United Provinces (UP) and Delhi in 1827. Very soon it crosses the country and spread in to China and literature stated that around 100 people were died every day. The third cholera pandemic started around 1852 and lasted long 1860. It is significant in the history because it infected those countries too which are not infected by Chorea till that time. Fourth Cholera Pandemic was started in 1852, major epidemic in Mecca in 1865 and in year 1887 the Kumbh Mela at Hardwar has been considered to be responsible for the epidemic spread of cholera in different provinces of northern India. In Madras Presidency ^[1] in 1877, mortality due to cholera was around nearly 100,000 deaths and as per the data available around 148,193 deaths were reported till 1876 in all over India. However, the fifth Cholera Pandemic ^[2] was considered as the less fatal as compared to the four other Cholera pandemics. The duration of this pandemic is 1881 to 1896. Apart from this, a new type of plague was identified in September 1896 in colonial Bombay, the anti-

plague campaign was started to battle this epidemic and it was based on the belief that the focus of the infections was from the slums. The plague killed thousands and many people were forced out of the city. Cholera cases in India had begun rising since 1899 followed by and by the major outbreaks in Calcutta and Bombay in 1900.

There were 189,955 cholera deaths were reported in India and between 1905 and 1908, there was an average of about 526,000 deaths each year were recorded; nearly 150,000 deaths in the 1906 were reported in Kumbh Mela, Allahabad ^[3], India. In year 1918 a new pandemic situation was faced by Indiana named, around 20-50 million death were recorded in worldwide, caused by the H1N1 strain of Influenza. In year 1970, a new health emergency occurred in India, named polio, which soon get spared all the cities; however, Uttar Pradesh was the most infected state. In 1964 and 1965, Bombay and Vellore received the vaccine against respectively and in January ^[4] 2011 India was declared polio-free country. World health organization (WHO) in year 2003, reported more the 2000 case of dengue fever in Delhi and surrounding areas.

In year 2020, again India facing a new pandemic situation named, COVID-19 cause by virus SARS-CoV-2, which is genetically 80 % similar to previous identified virus SARS in 2003, China. The first case of COVID-19 as reported in Wuhan city of China in 2019, and WHO declared public health emergency globally because it infected more than 693224 people worldwide and around more than 33106 deaths globally ^[5].

SARS Co V-2

Other than known SARS in 2003, there are six known coronaviruses in humans are HCoV-229E, HCoV-OC43, SARS-CoV, HCoV-NL63, HCoV-HKU1, and MERS-CoV and coronavirus has caused two large-scale pandemics in the last two decades named SARS and MERS. The new SARS-CoV-2, has single stranded RNA, zoonotic in nature and having symptoms fever, difficulties in breathing, nausea etc similar to the common cold, which make it more dangerous because it create confusion, weather person suffering from common cold or COVID-19, apart from this

- 78:1207-21.
3. Watson JT, Gayer M, Maire A. Connolly. Epidemics after natural disasters. *Emerging infectious diseases*. 2007; 13(1):1.
 4. Sen S, Indian cholera: A Myth. *Indian Journal of History of Science*. 2012; 47(3):345-374.
 5. John TJ, Dandona L, Sharma VP, Kakkar M. Continuing challenge of infectious diseases in India. *The Lancet*. 2011; 377(9761):252-69.
 6. Wang D, Hu B, Hu C, Zhu F, Liu X, Zhang J, *et al*. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China, *JAMA*, 2020. doi: 10.1001/jama.2020.1585
 7. Kumar S, Thombare PB, Kale PA. Impact of coronavirus (COVID-19) on Indian economy, Agriculture & Food: e-Newsletter. 2020; 2(4):301-302.
 8. Cascella M, Rajnik M, Cuomo A, Dulebohn SC, Napoli RD. Features, Evaluation and Treatment Coronavirus (COVID-19), 2020, Stat Pearls (internet), [PubMed: 19430490].