

COVID 19: A Current Scenario

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Abstract-COVID 19 is a recent epidemic among the different diseases around the world. Due to the absence of medicine, a huge number of livings lost their lives in a short period. Though we are not having medicine, we can able to control this by the various remedial measures. In this paper, the causes and symptoms of COVID 19 are discussed in detail. This paper also recommends the remedial measures for this virus. This review gives various strategies to fight with COVID 19. The statistical measures are shown and the importance of COVID 19 awareness throughout the world.

Keywords- SARS-CoV-2, MERS, COVID, Respiratory Syndrome

1 INTRODUCTION

The various diseases are spreading every day which affect human life. These diseases are caused by pathogenic microorganisms due to population explosion and various pollutions which affects the environment. Among these, Coronavirus Disease-19(COVID-19) is an infectious disease caused by a newly discovered virulent Coronavirus. The World Health Organization (WHO) stated as Coronaviruses are a large family of viruses that may cause illness in animals or humans. Coronaviruses are similar to Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) which are causes respiratory infections. The COVID-19 incubation period ranges from 1 to 14 days. This epidemic was unknown before the outbreak began in Wuhan, China, in December 2019 [1].

COVID-19 can be transmitted from one to another, who has this virus infection. The infection spreads via small droplets from the infected person's nose or mouth. These droplets land on objects and surfaces

around the person and alive for a few hours. So, the people nearby catch COVID-19 by touching these objects or surfaces. This is why people maintain to stay more than 1 meter from a person who is affected. [2]

The statistics indicate that around 1 in every 6 people get COVID-19 becomes seriously affected and develops breathing difficulties. Older people, and those who are all having medical problems like high blood pressure, heart problems or diabetes, likely to develop serious illness [3].

The number of cases of confirmed COVID-19 increasing abnormally worldwide. The infections by this virus can be transmitted through droplets. The transmission of the COVID-19 virus can occur by direct contact with infected people and indirect contact with virus affected environment[4].

Airborne transmission is different from droplet transmission. The identification methods are Endotracheal intubation, bronchoscopy, open suctioning, nebulized treatment, manual ventilation before intubation, turning the patient to the prone position, tracheostomy, and cardiopulmonary resuscitation suggested [5].

This paper gives a review of SARS-CoV-2, which is the current threat to the whole world. This section 2 discusses the literature of diseases worldwide affecting including COVID-19. The Statistics about the COVID-19 worldwide presented in section 3 and symptoms and remedial measures discussed in section 4. The conclusion is given in section 5.

2 LITERATURE SURVEY

According to WHO communicable diseases killed 5 million people from the year 2000 to 2016. The other virus-related outbreaks are described below[6].

The first recognized Ebola outbreak occurred in 1976, which affects humans past 40 years, more than 20 outbreaks have occurred in Africa. Most of the outbreaks occurred in the past 20 years. Before the 2014 epidemic, there are 1500 deaths had been documented from this viral attack [7].

Rabies is an avertable viral disease caused by the rabid animal to human beings. Rabies infects more than 150 countries in the world. The statistics from WHO states, almost 55,000 people die every year because of rabies[8].

Reports on hantaviruses in China and England states the first millennium and the middle age, respectively. More than 3000 United Nations and US soldiers experienced an acute febrile illness with acute renal failure and shock and a mortality rate of 7% [9].

Severe acute respiratory syndrome coronavirus (SARS-CoV) is a novel virus that caused the first major pandemic of the new millennium. Lack of biosecurity measures, jumping of this novel virus from animals to humans increased in large numbers. The lack of awareness, human-to-human transmission, and international air mode travel facilitated the rapid global dissemination and 8,000 people were affected, with a crude fatality rate of 10% [10].

SARS-CoV-2 belongs to the same large family of viruses as SARS-CoV, known as coronaviruses, and was first identified in December 2019 in the Chinese city of Wuhan. The virus-like SARS-CoV transmitted to people through intermediate animals [11].

The virus that causes Middle East respiratory syndrome(MERS), sparked an outbreak in Saudi Arabia in 2012 and another in South Korea in 2015. The MERS virus belongs to the same family of viruses as SARS-CoV and SARS-CoV-2 and originated in bats[12]. In the abovesaid literature,

SARS-CoV-2 is a major pandemic outbreak in the world level including all the regions, all the developed and developing countries[13].

3 STATISTICAL MEASURES

Globally 1 773 084 confirmed cases of corona and 111 652 deaths till 13th April 2020[13]. To analyze the cause of death and other measures, we have taken the dataset of COVID given WHO[14]. It has 8075 instances and 8 features including, date, country, region, confirmed cases and deaths. The structure of the dataset is shown in Figure 1.

Day	Country	Country Name	Region	Deaths	Cumulative Deaths	Confirmed	Cumulative Confirmed
0	2020-02-26	AF	Afghanistan	EMRO	0	0	0
1	2020-02-26	AF	Afghanistan	EMRO	0	0	0
2	2020-02-27	AF	Afghanistan	EMRO	0	0	0
3	2020-02-28	AF	Afghanistan	EMRO	0	0	0
4	2020-02-28	AF	Afghanistan	EMRO	0	0	0
...
8052	2020-04-08	ZW	Zimbabwe	AFRO	1	2	11
8053	2020-04-09	ZW	Zimbabwe	AFRO	1	3	11
8054	2020-04-10	ZW	Zimbabwe	AFRO	0	3	11
8055	2020-04-11	ZW	Zimbabwe	AFRO	0	3	11
8056	2020-04-12	ZW	Zimbabwe	AFRO	0	3	13

8057 rows x 8 columns

Fig. 1 COVID-19 Dataset provided by WHO

The statistical measures of all the features are found and tabulated in Figure 2. This dataset recorded 95 days in 213 affected countries which covers 6 regions of the globe.

	Deaths	Cumulative Deaths	Confirmed	Cumulative Confirmed
count	8057.000000	8057.000000	8057.000000	8057.000000
mean	13.139506	154.780563	210.387988	3052.705970
std	93.298452	1100.371753	1410.456996	18848.567565
min	0.000000	0.000000	0.000000	1.000000
25%	0.000000	0.000000	0.000000	6.000000
50%	0.000000	0.000000	2.000000	37.000000
75%	0.000000	5.000000	32.000000	345.000000
max	2003.000000	12479.000000	35386.000000	492851.000000

Fig. 2 Statistical Measures of Dataset

Figure 3 shows the various regions in the globe affected by the SARs-CoV-2 in the stipulated period. It shows the European region is affected badly with the count of 880106 and the African Union is the least affected.

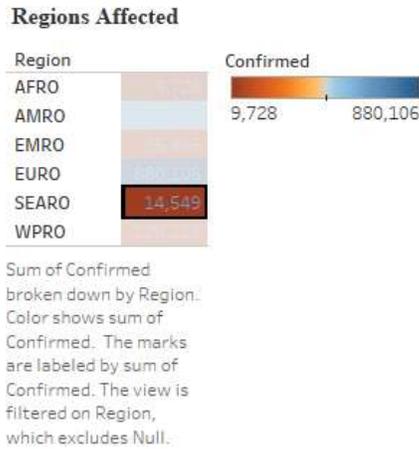


Fig. 3 Regions affected by SARS-CoV-2



Fig. 4 Countries Affected by SARS-CoV-2

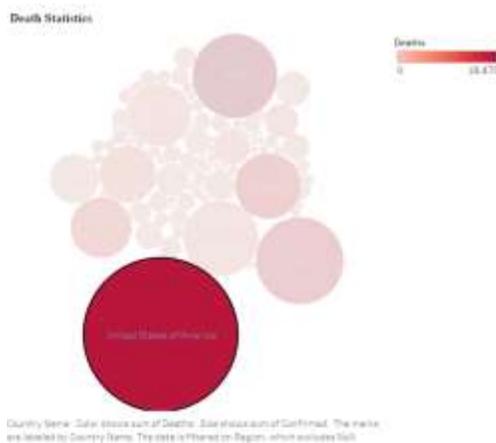


Fig. 5 Death rate by Countrywise

In this dataset there are around 213 countries are affected in the global epidemic crisis which is shown

in Figure 4. The highest number of deaths occurred in the United States of America, Italy, Spain, France and Iran that is shown in Figure 5.

4 SYMPTOMS AND REMEDIAL MEASURES

4.1 SYMPTOMS

COVID-19 typically presents with systemic and/or respiratory manifestations. Some individuals act as carriers and nonsymptomatic of SARS-CoV-2. Mild gastrointestinal or cardiovascular symptoms are less common. The COVID-19 Symptoms and signs are non-specific. The symptoms are categories into Less Common, Common and Rare Symptoms. The common symptoms are fever, cough, fatigue, sputum production and shortness of breath. Myalgia, Headaches, Short throat and chills are less common symptoms and the rare symptoms are nausea, vomiting, and nasal congestion. UK and Germany suggested that COVID-19 sufferers have high rates of anosmia/hyposmia: up to two-thirds of infected patients. COVID-19 is milder than in adults. Symptoms are similar to any acute chest infection, pyrexia, dry cough, sore throat, sneezing, and lethargy. Wheezing has also been noted. Other less common (<10%) symptoms in children included diarrhea, lethargy, rhinorrhea, and vomiting[15].

4.2 REMEDIAL MEASURES

Stay aware of the latest information on the COVID-19 outbreak, available on the national, state and local public health authorities. Many countries around the world have seen cases of COVID-19 and several have seen outbreaks. Authorities in China and some other countries have succeeded in stopping their outbreaks. However, the situation is unpredictable. Reduce the chances of being infected or spreading COVID19 by taking some simple precautions- Regularly and thoroughly clean the hands with an alcohol-based hand rub or wash them with soap and water. Washing the hands with soap and water or using alcohol-based hand rub kills viruses that may be on the hands. Maintain at least 1 meter (3 feet) distance between anyone who is coughing or sneezing. When someone coughs or sneezes they spray small liquid droplets from their nose or mouth

which may contain the virus. Avoid touching eyes, nose and mouth. Hands touch many surfaces and can pick up viruses. Once contaminated, hands can transfer the virus to eyes, nose or mouth. From there, the virus can enter the body and can make the person sick. Make sure the people around follow good respiratory hygiene. This means covering mouth and nose with bent elbow or tissue when coughing or sneezing. Then dispose of the used tissue immediately or droplets spread the virus. By following good respiratory hygiene protects the people around viruses such as cold, flu and COVID-19. Stay home, If the patient has a fever, cough and difficulty breathing, seek medical attention and call in advance. Follow the directions of the local health authority. National and local authorities will have the most up to date information on the situation in the area. Calling in advance will allow the health care provider to quickly direct to the right health facility[16]. This will also protect and help prevent the spread of viruses and other infections. Keep up to date on the latest COVID-19 hotspots (cities or local areas where COVID-19 is spreading widely).

5 CONCLUSION

This world faced many diseases due to viruses and lost a huge number of livings. Recently, COVID-19 is one of the major epidemics for which we are struggling to find the medicine. Many researchers are involving in this mission and the front line workers are playing an important role. In this review, we found that this COVID-19 spread affects many countries in the western region. The next finding is, major deaths have happened in western countries like America, Italy, and France, etc. This works also suggest the symptoms and remedial measures to be followed by human beings. we need to give our support to this fight against COVID-19 by obeying the rules and advice provided by governments.

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