



## Original Research Article

## Analysis of deaths during Lockdown period in Civil Hospital, Jalandhar: A retrospective study

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## ABSTRACT

The COVID-19 pandemic is caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). Numerous persons have been infected with COVID-19 in India and many have died. Fear of COVID-19 in public as well as in medical fraternity has created a panic which has deprived the general patients of proper medical care. In civil hospital Jalandhar 39 cases of COVID-19 positive and suspects died during lockdown/curfew period under study. The aims of the present study are to analyse the following data during the lockdown period of 23/03/2020 to 31/05/2020. Males constituted 57% of the patients. Co morbid conditions were Diabetes mellitus and Respiratory diseases. The most numerous patients were from 21-30 years age group. Death rate was 3%. Although this was a small sample, the findings were significant.

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### 1. Introduction

The COVID-19 pandemic, also known as the corona virus pandemic, is an ongoing phenomenon caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). Thousands of peoples are dying throughout the world of this infection. India reported its first case of COVID-19 on 30<sup>th</sup> January 2020. Since that thousands of persons have been infected with COVID-19 and numerous have died in India as well.

Fear of COVID-19 in public as well as in medical fraternity has created a panic situation. Because of this fear in medical fraternity non COVID-19 patients are suffering. Many times serious patients visiting multi specialty private hospitals were referred to government hospital for COVID-19 testing before they would admit them for other ailments. COVID-19 testing can identify the SARS-CoV-2 virus and

includes methods that detect the presence of the virus itself (RT-PCR, isothermal nucleic acid amplification, antigen). This procedure is very lengthy (it takes time from few hours to days). During this interval many serious patients died awaiting the results of their tests without recourse to proper treatment. Many non COVID-19 patients died without treatment on the apprehension of being infected.

On being diagnosed as Covid positive, many patients were denied treatment at private hospitals as the doctors and staff had to take extra precautions and protective measures which resulted in a huge rise in cost which the patients were not willing to bear. The patients who tested Covid-19 negative did not get the attention which they required as the accuracy of these tests was no where perfect and the fear still existed. As a result many of them lost their lives due to lack of proper medical care.

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## 2. Aims and Objectives

The aims of the present study are to analyse the following data during the lockdown period of 23/03/2020 to 31/05/2020.

1. The patient died due to Covid-19 infection alone or were suffering from co-morbid conditions.
2. What were the main co morbid diseases from which the Covid-19 patients died.
3. The age and gender spectrum of the patients who died.
4. Percentage of patients who died v/s cured.

Although there are numerous reports that during the lockdown period the mortality due to diseases like TB, MDR TB and HIV increased many fold but this is not within the purview of this study.

## 3. Results

In civil hospital Jalandhar 39 cases of COVID-19 positive and suspects died during lockdown/curfew period under study. Data thus collected analyzed and found:

**Table 1:** Split of Covid-19 Positive and Negative deaths during 23/03/ to 31/05/2020

Total Deaths	COVID-19 Positive	COVID-19 Negative
39	07	32

Total patients who died that tested Covid-19 positive were 24% of the total deaths due to illness.

**Table 2:** Co morbid analysis of COVID-19 positive cases

Age/sex of deceased	Number of deceased						
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>TH</sup>	6 <sup>th</sup>	7 <sup>th</sup>
Name of diseases							
Diabetes mellitus	+	+	+	+			
Chronic renal failure				+	+		+
Heart diseases							
Lungs diseases	+						+
Other diseases							+

Table 2 percentage of males who died with COVID-19 is about 57% and percentage of female died with COVID-19 is about 43%. Out of these seven deaths five deceased were aged more than 50years.

A majority of the patients who died of disease were suffering from Diabetes and Lung disease.

Table 4 shows that the largest infected age group is between 21-30 yrs and second largest is between 31-50yrs. Elders and children are less infected than younger and middle age groups.

**Table 3:** Co morbid analysis of COVID-19 negative cases

Name of diseases	Number of deceased
Diabetes mellitus	7 (three cases with CKD and two cases with heart diseases)
Chronic renal failure	4
Heart diseases	6
Lungs diseases	13
Other diseases	2

**Table 4:** Age wise distribution of cases: Total number of COVID-19 positive cases from (23/03/2020 to 31/05/2020): 242

Age in years	Number of cases	Percentage
0-10	15	6.19%
11-20	15	6.19%
21-30	55	22.72%
31-40	46	19.00%
41-50	46	19.00%
51-60	38	15.70%
Above 61	27	11.15%

**Table 5:** Death rate of confirmed cases

Total positive cases	Cured cases	Deaths
242	218	7

**Table 6:** Gender wise distribution of cases

Gender	Total number of cases	Percentage
Male	150	61.98%
Female	92	38.01%

Percentage of covid positive patients who died was about 3%.

Table 6 shows that male are more involved than females.

## 4. Discussion

Pandemics of influenza have been recognized since the earliest recorded history and, because of the mutability still poses a serious health threat. Three worldwide outbreaks of influenza occurred in 1918, 1957, and 1968. All 3 have been informally identified by their presumed sites of origin as Spanish, Asian, and Hong Kong influenza. They are now known to represent 3 different antigenic subtypes of influenza A virus: H1N1, H2N2, and H3N2, respectively.

Although the scientists have made a lot of progress in defining the virus, its mode of spread and in developing methods for prevention of infection, no proper strategy has been established. The 1918 influenza pandemic was the most severe pandemic in recent history. It was caused by an H1N1 virus with genes of avian origin. Although there is not universal consensus regarding where the virus originated, it spread worldwide during 1918-1919. Mortality was high in people younger than 5 years old, 20-40 years old, and 65 years and older. The high mortality in healthy people,

including those in the 20-40 year age group, was a unique feature of this pandemic. The Hong Kong flu came in 1968 and as this epidemic progressed, initially throughout Asia, important differences in the pattern of illness and death were noted.

Excess mortality was delayed by 1-2 years in 18 countries (46%). Increases in the mortality rate relative to baseline were greatest in school-aged children and young adults, with no evidence that elderly population was spared from excess mortality.

The COVID-19 pandemic is caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). The outbreak was first identified in Wuhan, China, in December 2019 and the origin is suspected to be from bats. The COVID-19 appears infecting the younger individuals more than elderly. The higher rate of mortality of COVID-19 in elderly individuals has been discussed in many reports.<sup>1</sup> During early stages covid-19 pandemic the mortality rate for men in China was high. This pattern has been confirmed when data from more countries become available. Globally, the risk of infection with COVID-19 seems similar for both the genders. But the resulting death rates are very different.<sup>1</sup> Hypertension and diabetes are seen in majority of elderly persons who lost their lives with covid-19 pandemic.<sup>2</sup> The death rate in COVID-19 infected patients with co morbid disease is very high.<sup>3</sup>

The pandemic of 1957 provided an opportunity to observe vaccination response in that large part of the population that had not previously been primed by novel HA and NA antigens not cross-reactive with earlier influenza A virus antigens. No vaccine has been so far proved to be effective against the corona virus although numerous trials are on.

## 5. Conclusions

The present study presents a small sample of the patients limited to the district Hospital at Jalandhar. Total deaths

that tested Covid-19 positive were 24% of the total deaths due to illness during the lockdown period. The gender difference was males who died with COVID-19 was 57% and percentage of female was 43%. Most of the Covid-19 negative patients who died of disease were suffering from Diabetes and Lung disease.

The largest infected age group is between 21-30 yrs and second largest was between 31-50yrs. The gender distribution showed that almost twice the number of males were infected as compared to females. It was significant that only about 3% of the tested positive patients died while the rest recovered.

## 6. Source of Funding

None.

## 7. Conflict of Interest

None.

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