Mild COVID: Our Experience So Far

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Abstract:

The novel corona virus is the causative agent of covid 19 which has led to a huge loss of lives and resources throughout the world including India. The study was conducted to analyse the clinical profile of patients with asymptomatic / mild COVID-19 admitted in the Covid Emergency Ward of Gauhati Medical College and Hospital during the period of 1st January 2021- 31st December 2021. The mean age of the study population was 46.4 years with a male to female ratio of 1.22:1. 51.8% patients were from urban areas and among the symptomatic patients, fever was the most common presenting symptom. 34.75% patients had associated comorbidities and 1.66%patients succumbed to the illness.

Keywords: novel corona virus, asymptomatic, mild covid, co-morbidities.

Introduction

The new coronavirus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) caused the human pandemic COVID infection since its first detection on December 2019. It is a highly transmissible and virulent human-infecting coronavirus that has massively impacted global public health and caused widespread disruption to daily life. It is an enveloped RNA viruses that belong to the *Coronaviridae* family within the order *Nidovirales*.[1] There are four coronaviruses (CoV-229E, CoV-OC43, CoV-NL63, and CoV-HKU1) which are endemic and cause mild infections in healthy humans [2].Uptil July 2022, more than 560 million covid cases and 6.3 million deaths have occurred so far3. Transmission from human to human is by direct contact and aerosol generation. The incubation period is 4-5 days but it last upto 14 days. The most common symptoms are fever, cough and fatigue [4]. Less frequent symptoms are diarrhoea, vomiting, muscle aches, loss of smell and taste. These are present in 81% cases. About 14 % progress to severe pneumonia and require ventilator support. Rest 5% develops acute respiratory distress syndrome, multi organ dysfunction [5].

Study Centre

Covid Emergency Ward, Gauhati Medical College Hospital (GMCH).

Study Type

Single centre cross sectional observational study

Study Duration

January 2021- December 2021 (1 year).

Sample Size

A total of 4805 patients who were admitted in the covid emergency ward of GMCH during the period from 1st January 2021 to 31st December 2021 were included in the study.

Inclusion Criteria

All patients who were either RAT or RT-PCR positive for Covid 19 with asymptomatic/mild disease at the time of admission as per ICMR/MoHFW, Govt. of India guidelines were included in the study.

Exclusion Criteria

Patients with moderate to severe covid on admission.

Monitoring

The patients were assessed at the time of admission and thereafter monitored daily. Treatment was given as per the ICMR/ MoHFW guidelines. Mild cases were admitted for 5 days isolation. After that they were tested by RAT on 5th days and discharged if results were negative. The patients who developed moderate/severe disease during hospital stay were shifted to other centre catering severe disease patients as per bed availability.

Results

Age Distribution

Table 1: Age distribution

| Age (Years)	Number Of Patients	Percentage
<1	199	4.14
1-10	86	1.78
11-20	320	6.66
21-30	986	20.52
31-40	778	16.19
41-50	702	14.61
51-60	889	18.50
61-70	594	12.36
71-80	198	4.12
>80	53	1.10
TOTAL	4805	100
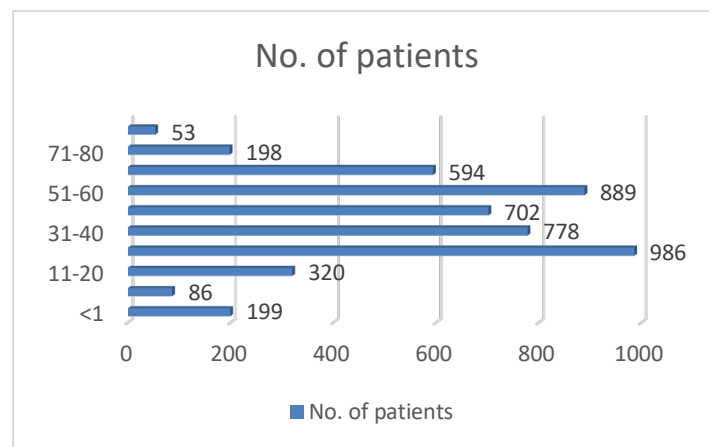
Figure 1: Number of patients

In our study, the maximum number of patients were between 21-30 years followed by 51-60 years. The oldest admitted patient was 99 year old whereas the youngest was a 1 day old neonate.

Sex Distribution

Table 2: Sex

| Sex	Number Of Patients	Percentage
Male	2642	54.98
Female	2163	45.02
Total	4805	100
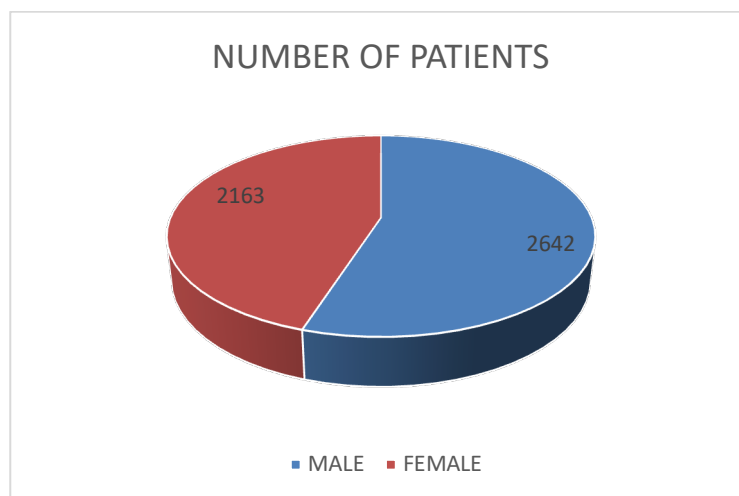
Figure 2: Number of patients

A greater number of the study population were males (n= 2642, 54.98%) with a male to female ratio of 1.22:1

Residence

A total of 2490 patients lived in urban areas whereas 2212 patients lived in rural areas . 103 patients belonged to other states.

Table 3: Residence

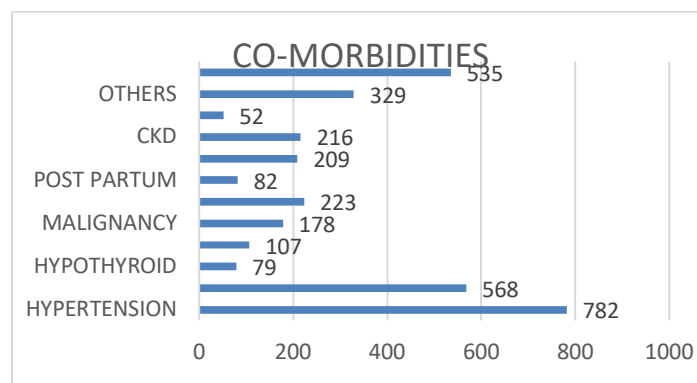| Residence	Number Of Patients	Percentage
Urban	2490	51.82
Rural	2212	46.03
Others	103	2.14
Total	4805	100
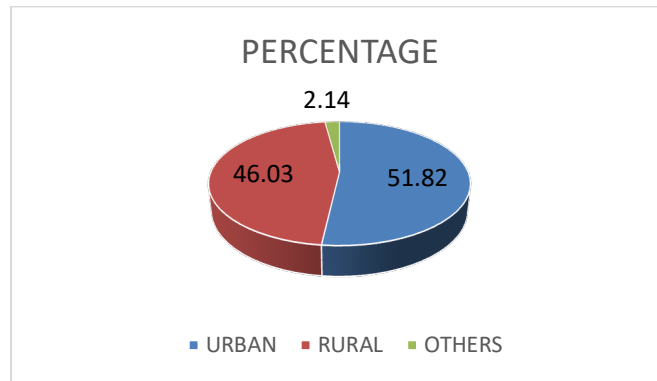
Figure 3: Percentage

Co- Morbidities: Out of the total 4805 patients, 1670 patients had associated co-morbidities. Of them hypertension was the most common present in 782 patients followed by diabetes mellitus present in 568. 178 patients had associated malignant illness and 223 patients were pregnant. Many patients had more than 1 co-morbid illness.

Table 4: Co- Morbidities

| Co- Morbidities	Number Of Patients	Percentage
Hypertension	782	16.27
Type 2 Diabetes Mellitus	568	11.82
Hypothyroid	79	1.64
Obesity (BMI>25)	107	2.22
Malignancy	178	3.70
Pregnancy	223	4.64
Post Partum	82	1.70
COPD	209	4.34
CKD	216	4.49
CLD	52	1.08
Others	329	6.84
>1 Comorbid Illness	535	11.13

Figure 4: Co- Morbidities

Disease Severity

Of the 4805 admitted patients, 1961 patients were asymptomatic, 2844 were classified as having mild disease

Table 5: Disease Severity

Disease Severity	Number Of Patients	Percentage
Asymptomatic	1961	40.81
Mild	2844	59.18
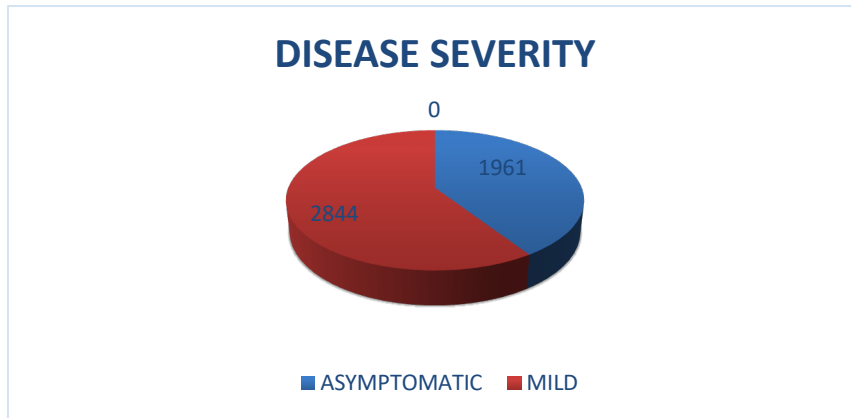
**Figure 5: Disease Severity**

Clinical Features

Almost all the asymptomatic patients were detected during routine/ voluntary testing or were the household contacts of known covid patients. Among the patients with mild symptoms fever was most common followed by generalised weakness and myalgia.

Of the 4805 patients who were admitted 112 patients succumbed to their illness . Of the 112 patients, the cause of death in 32 patients were considered to be due to their associated co-morbid condition. 890patients   progressed to moderate/ severe disease and were shifted to covid ICU centre. The status of 8 patients remained unknown.

Hospital Outcome

Table 6:

Hospital Outcome	Number Of Patients	Percentage
Discharged/Home Isolation	3795	78.98
Death Covid	80	1.66
Death Non Covid	32	0.67
Moderate /Severe Covid	890	18.52
Unknown	8	0.16
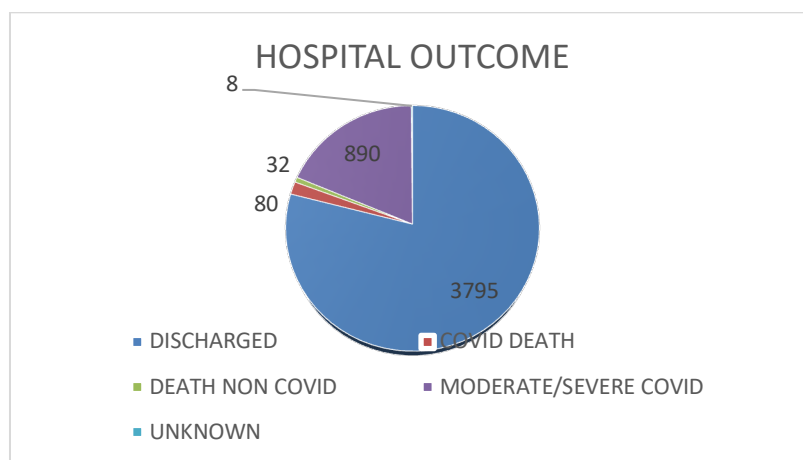
Figure 6: Hospital outcome

Discussion

The study was conducted in the Covid Emergency Hospital of GMCH during the period of January-December 2021to assess the clinical profile and outcome of patients with asymptomatic and mild covid infection which is probably the least studied group in various clinical studies all over the world. According to the ICMR guidelines , MILD COVID was defined as those having fever, myalgia, sore throat, dry cough , loss of smell and taste, SPO2 in room air >94%, normal respiratory rate and no dyspnoea.[6] The reason why asymptomatic and mild cases were admitted was mainly due to the fact that for most of the patients, their living conditions did not have provision for isolation at home. Also there was a strong commitment of the government agencies to limit the spread of infection in the state and hence most of the patients were encouraged to get admitted where they were provided treatment free of cost.

The mean age of our study population was 46.40 years with a standard deviation of 17.23years . 2 studies conducted in northern India by Gupta et al [7] and Soni et al [8] showed a mean age of 40.3 years and median age of 33 years. Patients in our study were younger compared to those in China [9] and Italy [10] where the median age of the study population was 56 years and 63 years respectively.

In our study, males constituted around 55% of the study population, the results of which were similar to the study conducted by Soni et al where males constituted 57% of the population.

In our study co-morbidities were present in 34.75% of the patients and hypertension was the most common co morbidity encountered in 16.2% cases followed by diabetes in 11.8%. 11.1% patients had more than 1 comorbid illness. Study conducted by Jamil et al,[11] the percentage of patients with comorbidities were present in 46.67% cases in which diabetes was the most common in 36.9% cases followed by hypertension in 34.5% . Study conducted by Soni et al, also revealed presence of co morbidities in 29.8% patients in which hypertension was present in 16.6%, diabetes in 14.9 %. 8.7% patients had more than 1 co morbid illness.

40.8% of our study patients were asymptomatic and 59.1% patients were classified to have mild disease on admission as per the definition provided by ICMR. In the study conducted by Jamil et al 56.6% patients were asymptomatic, 14.4% had mild disease, 10 % had moderate disease and 18.8% patients had severe disease.

The case fatality rate in our study involving asymptomatic/ mild covid on presentation was 1.66%. This is comparable to the case fatality rate across India which was 1.09% until May 2021 compared to 2.07% globally.[12]

Conclusion

The covid pandemic has been a learning experience for the entire medical fraternity worldwide. It has stressed that simple measures like hand washing, social distancing and wearing a simple mask can go a long way in preventing spread of deadly diseases and pathogens.

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