



## RESEARCH ARTICLE

### CLINICAL PROFILE OF PREGNANT WOMEN DURING COVID-19: A RETROSPECTIVE ANALYSIS

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#### ABSTRACT

**Background and Aim:** Pregnant women are prone to Coronavirus Disease-19 (COVID-19) infection due to altered immunity. This study was aimed to see clinical profile of pregnant women during COVID-19. **Methods:** This was retrospective observational study included 470 pregnant women who tested positive for COVID-19 and were either post-abortion, in the early stages of pregnancy, or had recently given birth between April 1 and May 31, 2021. **Results:** Majority of the women aged 30-39 years. 29.1% of the mothers were multigravidas, and 50.4% of the gestation period was under 34 weeks old. Out of 310 symptomatic women, 200 women had mild symptoms and did not require oxygen while 110 women received oxygen therapy. Out of 110 women who required supplemental oxygen, 30 women required mechanical ventilation. Out of 30 women who required mechanical ventilation, mortality was reported in 14 women (47%). **Conclusion:** Pregnant women who require mechanical breathing have a greater mortality rate.

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## INTRODUCTION

Until now, the coronal viral infection (COVID-19) is still a public health issue. On December 31, 2019, In Wuhan, Hubei Province, China, the first case of coronavirus infection was discovered and reported to the World Health Organization (WHO) (Liu et al., 2020). By the 30th of January 2020, it has been labelled a (PHEIC) Public Health Emergency of International Concern (World Health Organization, 2020). COVID-19 is mostly transmitted by respiratory droplets and direct touch, according to current findings. In a study of 75,465 COVID-19 cases in China, no evidence of airborne transmission was found (Ong, 2020). Transmission can happen by a droplet when two people are within one metre of each other, it can also arise as a result of fomites in the close vicinity of the affected person.<sup>4</sup>In the case of COVID 19, airborne transmission might be possible under certain circumstances, such as processes that create aerosols, such as endotracheal intubation, turning the patient prone, or tracheostomy. There were multiple accounts of potential vertical viral transmission, which alarmed the medical community. The incubation time is thought to be between 2 and 14 days. However, in Hubei, China, there has been an instance of incubation extending up to 27 days (Laurel, 2019). It's important to remember that the incubation period differs from person to person. In a Wuhan study of 181 patients, the period from the onset of symptoms to death ranged from

6 to 41 days, with a median of 14 days and a 2.3% case fatality rate (Za, 2020). The most common classic presenting symptoms include fever, cough, sore throat, malaise, headache, and eye discomfort. With the new unusual symptoms expected in 2021, experts are currently discovering the signs of this new virus. Symptoms included loss of smell and taste, dizziness, nausea, vomiting, diarrhoea, rash, hives, chickenpox-like lesions, as well as cardiovascular, renal, and neurological issues (Hopkins, 2020). Currently, RTPCR detection of viral RNA from the nasopharyngeal mucosa is the gold standard assay, as recommended by the ICMR. Confirmation antibody tests on blood are advised for prior illnesses, however their usefulness has to be validated and researched further. So many pregnant women have been affected by the corona virus this year, and in such a terrible way. The immune system is known to be weakened during pregnancy. However, in comparison to previous year, the virus claimed the lives of so many people and left so many children without a mother this year. In this retrospective analysis, we investigated at the clinical features of pregnant women during COVID-19.

## METHODS

This was retrospective observational research conducted at the Govt. Medical College in Ajmer, Rajasthan, in the Obstetrics and Gynecology Department. The study included 470 pregnant women who tested positive for COVID-19 and were either post-abortion, in the early stages of pregnancy, or had recently given birth between

April 1 and May 31, 2021. Compulsory mask with adequate hand hygiene, as well as social separation was established. Patients who tested positive for Covid were moved to the appropriate Covid Wards. The labour room and OT complex were cleaned and disinfected at regular intervals.

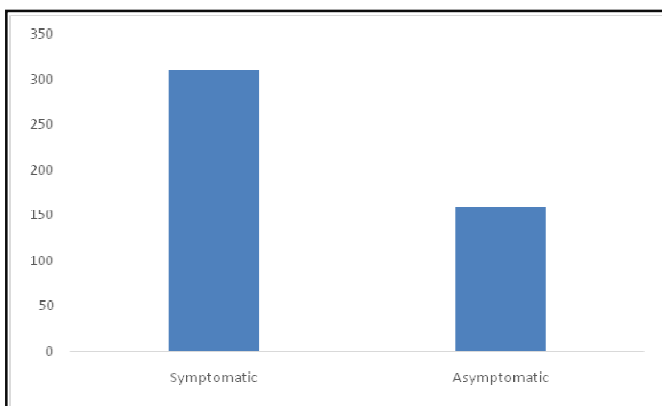
## RESULTS

**Demographic characteristics:** In this study, majority of the women aged 30-39 years. 29.1% of the mothers were multigravidas, and 50.4% of the gestation period were under 34 weeks old (Table 1).

**Table 1: Demographic characteristics**

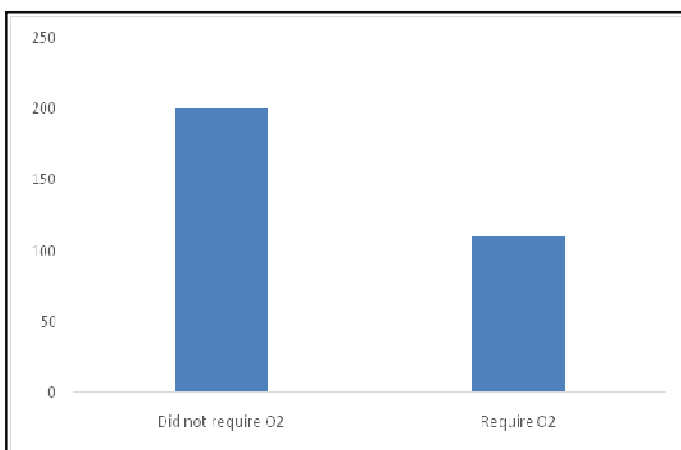
|                                | Frequency | Percentage |
|--------------------------------|-----------|------------|
| <b>Age (years)</b>             |           |            |
| 21-25                          | 103       | 21.9       |
| 26-29                          | 121       | 25.7       |
| 30-39                          | 137       | 29.1       |
| >40                            | 109       | 23.2       |
| <b>Gravida</b>                 |           |            |
| Primi                          | 233       | 49.6       |
| Multi                          | 237       | 50.4       |
| <b>Gestational age (weeks)</b> |           |            |
| <34                            | 199       | 42.3       |
| 34-37                          | 167       | 35.5       |
| >37                            | 104       | 22.1       |

**Symptoms:** In this study, 310 women were symptomatic while 160 were asymptomatic (Figure 1).



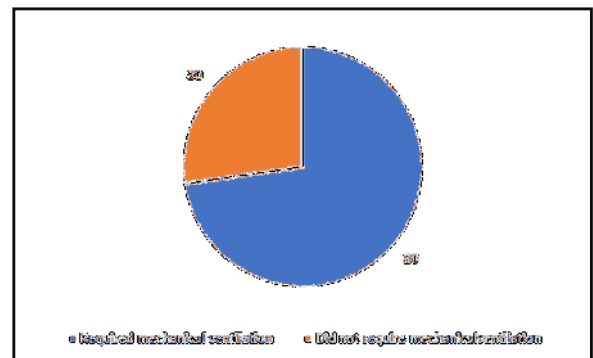
**Figure 1. Symptoms**

**Requirement of oxygen:** Out of 310 symptomatic women, 200 women had mild symptoms and did not require oxygen while 110 women received oxygen therapy (Figure 2).



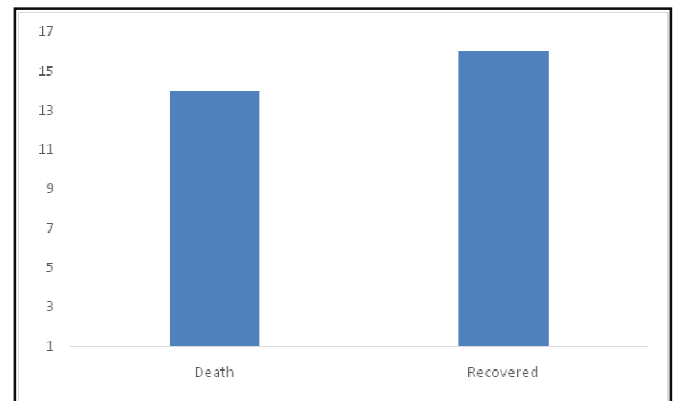
**Figure 2: Requirement of oxygen**

**Requirement of mechanical ventilation:** Out of 110 women who required supplemental oxygen, 30 women required mechanical ventilation.



**Figure 3. Requirement of mechanical ventilation**

**Outcome:** Out of 30 women who required mechanical ventilation, mortality was reported in 14 women (47%).



**Figure 4. Outcome**

## DISCUSSION

COVID- The global health system has been impacted by 19 pandemics. Non-emergency but critical prenatal services have to be sacrificed during the pandemic, where social separation is critical for survival. Sixty-six% of the women in this research had no symptoms. People who were infected with SARS-CoV-2 but did not exhibit COVID-19 symptoms after February 2020 have been reported. The viral load of such asymptomatic people has been shown to be comparable to that of symptomatic people in some situations, implying a similar risk of viral transmission. Out of 310 sick women, 200 had minimal symptoms and did not require oxygen therapy, whereas 110 needed oxygen. Thirty of the 110 women who needed supplementary oxygen needed mechanical ventilation. Mortality was observed in 14 of the 30 women who required mechanical ventilation (47%). Finally, each pregnancy is valuable, whether it is with or without COVID-19. Antenatal care is still an important aspect of maternity care. COVID-19 has altered the way pregnant women are cared for. Women who require mechanical breathing have a greater death rate.

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