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# Effects and Outcomes of Pregnancy with Covid 19

[1.]Vanshika Vyas
[2.] Hemlata Salvi
[3.]Dr. Jai Singh Vaghela
*PHARM D [ DOCTORATE OF PHARMA]*
*Bhupal Nobles' College Of Pharmacy, Udaipur, Rajasthan, India.*
*Ananta Institute Of Medical Sciences & Research Center, Rajsamand, Rajasthan, India.*

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## ABSTRACT
This study aims to contribute in gain better knowledge about to demonstrate the maternal and neonatal outcomes of COVID- 19 infected mothers. This study is a retrospective study and was done by the analysis of data that were originally collected for reasons other than research. We collected the data from the MRD (Medical Record Department) of the hospital. We included the data of 30 pregnant women with positive RT- PCR COVID- 19 test reports who were admitted to hospital for delivery between the period of 4 months (march 2021 to June 2021). This study was conducted at the Ananta Institute of Medical Science & Research Center.

## I. INTRODUCTION
Pregnancy is the condition of events involving fertilization, implantation of fertilized ovum, development of embryo and fetus and finally ending with birth of the child. Gestation period, which is duration between fertilization and birth, in humans is around 38 weeks i.e., 9 months and divided into 3 trimesters each of 3 month duration.

First trimester: during this period the initial components of all essential organs appear. This trimester is considered to be most critical for development as the developing embryo is greatly affected by drugs, radiations, microorganisms, etc.

Second trimester: during this period the major organ system have almost completed their development and therefore the developing fetus at the end of second trimester acquires human appearance.

Third trimester: the major organ system which have completed their development became functional during this period. **(1)**

### Corona Virus (COVID- 19)
It is a contagious illness brought on by the recently discovered corona virus. The letters "CO," "VI," "D," and "19" stand for the corona, viruses, diseases, and the year 2019. The Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome are two of the more severe diseases caused by the broad family of viruses known as the corona virus (SARS- CoV). A novel corona (nCoV) is a fresh strain that has never been discovered in people before. Pheumonia patients with an unknown aetiology began to appear in Wuhan in December of 2019 and had clinical signs that resembled viral pheumonia. A new corona virus that caused severe acute respiratory syndrome was discovered by deep sequencing analysis of samples from the lower respiratory tract. SARS-like coronavirus type 2 **(2)**

### Covid- 19 and pregnancy
The efforts are ongoing to understand the impacts of infection on pregnant mothers and their babies. Evidence suggests that women who have covid-19 throughout pregnancy are more vulnerable to serious illnesses, have a higher chance of preterm birth, and have a higher risk of maternal or foetal death. While the majority of newborns delivered to SARS- CoV- 2 positive women test negative, they rarely show symptoms of virus- induced illness. There have been instances where neonates tested positive and showed signs of illness right away. It is still unclear whether this is a result of SARS-CoV-2 transplacental transmission or infection after delivery. **(3)**

## II. METHODOLOGY
### Study Design
This is a retrospective study whose major consideration is to determine the objectives such as transmission of covid- 19 from mother to baby, effect of covid- 19 on mothers and fetal and neonatal outcomes. We collected the data of 30 term and nearterm pregnant patients who were admitted for delivery between the period of 4 months (march 2021 to june 2021) at Ananta Institute of Medical

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Science & Research Center, which is tertiary level care centre designated hospital for COVID- 19 treatment.

**Sample size**

Data records of 30 pregnant patients were collected under study.

**Study Materials**

Data records from MRD, Analytical software, Obstetrics and Gynocological department, Journals, etc.

**Procedure**

This study would be done by the analysis of the data that were originally collected for reasons other than research. This includes gynocologist, nursing notes, ambulatory and emergency room reports, consultations, admission and discharge documentation, laboratory and diagnostic testing reports and other clinical or administrative data.

**Collection of data**

The study was conducted by firsty collecting data files of the pregnant patients with COVID- 19 from the MRD department of the Ananta Hospital. All data files and laboratory results were collected and recorded for the analysis of data.

**Analysis of data**

All recorded data was then analysed on the basis of various variables and characteristics (including continuous variables or categorical variables) on a software for obtaining the required statistical data.

**Conclude the result**

Mean standard deviation, frequency, percentage values are obtained by the statistical data then used to concluding the final result of the study, certain charts or graphs also obtain by data based on probability statistics.

## III. RESULTS AND DISCUSSION

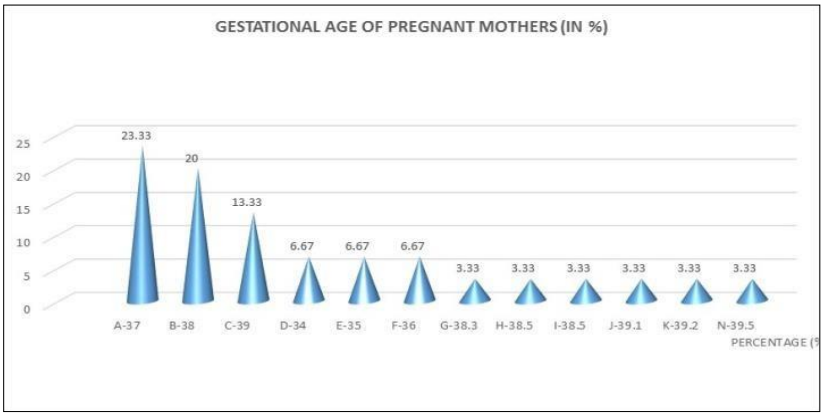


**Figure 1:** Gestational Age of Pregnant Mothers

Gestational age of the subjects were recorded, and were divided into following categories based on frequency and represented in the graph.

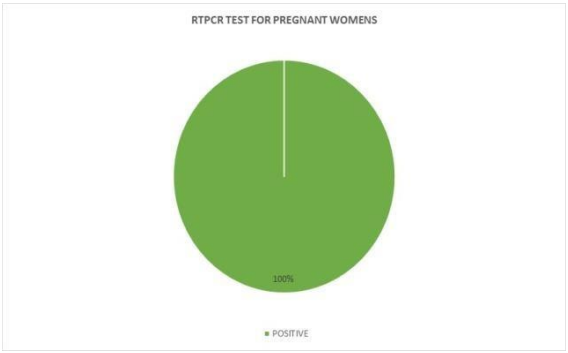


**Figure 2:** RTPCR test for pregnant women

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The graph represents that all the patients (100%) are RTPCR positive patient.

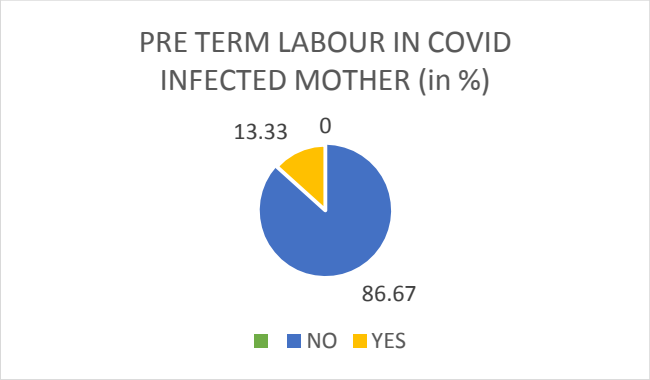


**Figure 3:** Pre- term labour in COVID infected mothers

The recorded data of the subject indicates that the frequency percentage of having preterm labour is 13.33 and having full term labour is 86.67.

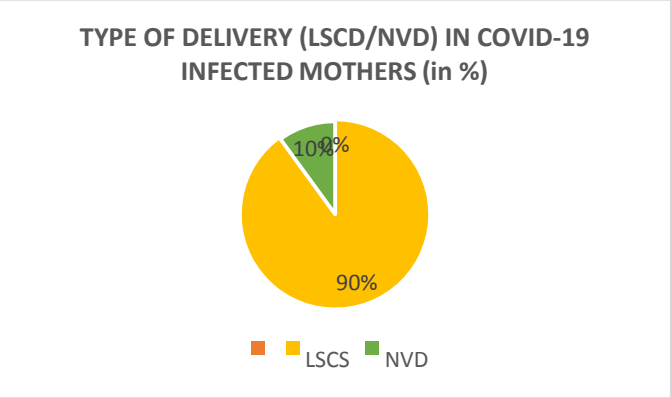


**Figure 4:** Type of delivery (LSCS/NVD)

The recorded data of the subjects from the graph indicates that the percentage of having delivery by LSCS (C-section surgery) is 90% whereas percentage of having normal vaginal delivery is 10%.

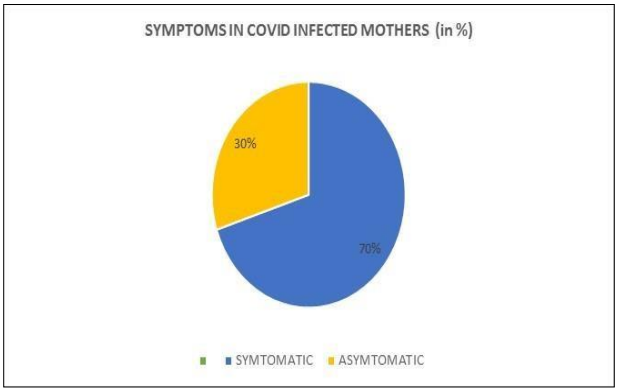


**Figure 5:** Symptoms in COVID infected mothers

The recorded data of the subject from the graph indicates that 70% of the patient is symptomatic for COVID- 19 infection and 30% of patient is Asymptomatic.

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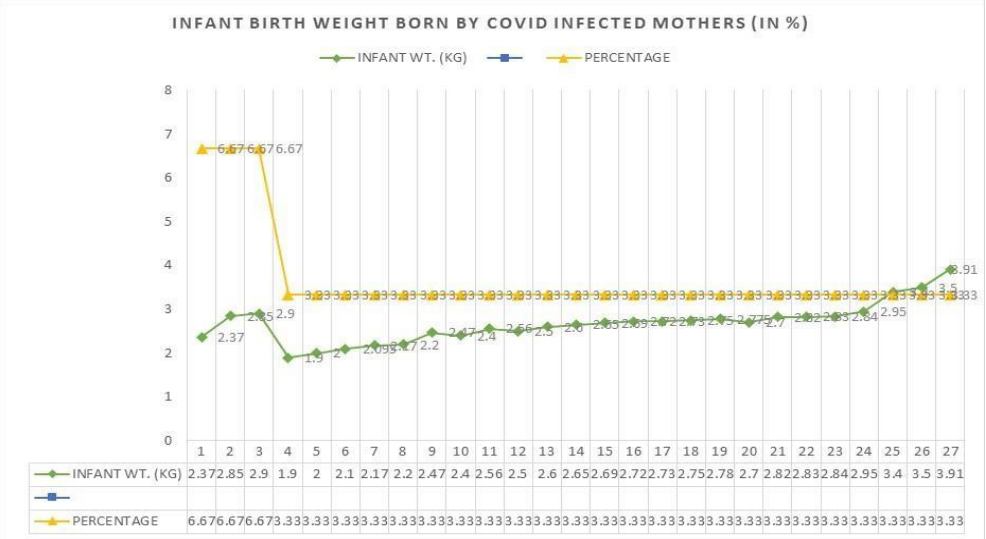


| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INFANT WT. (KG) | 2.37 | 2.85 | 2.9 | 1.9 | 2 | 2.1 | 2.17 | 2.2 | 2.47 | 2.4 | 2.56 | 2.5 | 2.6 | 2.65 | 2.69 | 2.72 | 2.73 | 2.75 | 2.78 | 2.7 | 2.82 | 2.83 | 2.84 | 2.95 | 3.4 | 3.5 | 3.91 |
| PERCENTAGE | 6.67 | 6.67 | 6.67 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 |

**Figure 6:** Infant birth weight born by COVID infected mothers

Birth weight of neonates were recorded and distributed into following categories represented in the graph.

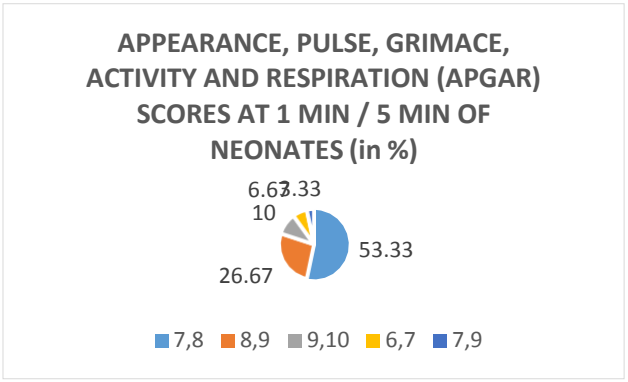


**Figure 7:** APGAR

APGAR scores at 1min/ 5min of the units after birth were recorded and represented in the graph according to frequency and percentage distribution.

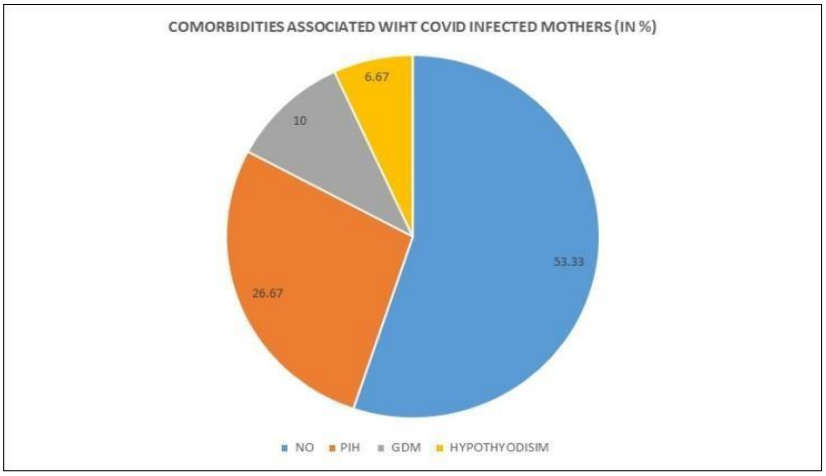


**Figure 8:** co-morbidities associated with COVID infected mothers

The recorded data of the patient from the graph represents the percentage of the associated co-morbidities of the patient which is 3.33% of patient having Hypothyroidism, 3.3% of patient having Gestational Diabetes Mellitus (GDM), 10% of patient having pregnancy induced Hypertension (PIH) and 83.33% of patient having no co-morbidities.

## IV. CONCLUSION

Our reterospective study, including 30 pregnant women with COVID- 19 infection shows that majority of humans having covid- 19 have preterm labour as compared to normal population. The frequency of having lower segment caesarean section (LSCS) is also increased instead of normal vaginal delivery (NVD).

No SARS- CoV-2 infection is found in neonates. No cases of neonatal death were reported. There are no cases of severity of pregnant womens or admission to ICU were reported. Maternal mortality is rare.

Further studies, long term follow- up and a bigger cohort will gives a better understanding or knowledge about outcomes.

## V. LIMITATIONS

The study performed has several limitations:

**Small sample:** First, only 30 pregnant womens COVID 19 were included in the analysis, small number of patients and lack of data of non- pregnant women as a control group was a major drawback.

**Reterospective evaluation of medical records with incomplete data:** Second, there is a drawback of incomplete or less data as all patients were admitted or present at hospital were in the last trimester. So, the effect of the virus on the fetus in the first or second trimester is unknown.

**Incomplete or lost to follow- up:** third, majority of patient were discharged or referred for home isolation after delivery leads to lost to follow- up which was a drawback for analyzing the neonatal outcomes or postnatal outcomes.

## REFERENCES

[1]. Rasheed H. S. A textbook of human anatomy and physiology. 2nd and revised and updated ed. SIA publishers and distributers Pvt. Ltd; 2019. P. 305

[2]. Kaur P, Walecha N and Devi MG. Clinical presentation, maternal and neonatal outcomes of pregnant women with COVID- 19: Indian Obs. And GYn. 2021;11 (2): 9-13.

[3]. Ryan GA, Purandare NC, McAuliffe FM, Hod M, Purandare CN. Clinical updated on COVID-19 in Pregnancy: A review article. J Obstet Gynacol Res. 2020; 46(8): 1235-1245. Doi: 10.1111/jog. 14321. Epub 2020. PMID: 32500549; PMCID: PMC7300676.