

A Study to Assess the Mode of Delivery among COVID - 19 Postnatal Mother Admitted at SMVMCH, Puducherry

A. Gracesuji¹, P. Manimegalai²

¹Nursing Officers, Pondicherry Medical College and Hospital, Puducherry, India

²Associate Professor, Department of Obstetrics and Gynaecological Nursing, Sri Manakula Vinayagar Nursing College, Puducherry, 605107, India

Abstract: *Childbearing women and newborn infants continue to require safe family centered care during the current COVID - 19 pandemic and they represent a vulnerable population. Caesarean section is not a recommended method of childbirth in pregnant women infected with COVID - 19, however this was the mode of delivery in the majority of cases with foetal distress cited as the indication behind the clinical decision. There was no evidence of COVID - 19 in the amniotic fluid, umbilical cord blood, and neonatal throat swab or breast milk samples. Vertical transmission was reported as negative in all neonates. In this paper, we discuss mode of delivery among COVID - 19 postnatal mothers and maximize the health outcomes of women and infants. The main study was conducted at SMVMCH, Puducherry. The period of data collection was 1 week, and the data were collected from the 30 mothers by using structured questionnaires. Convenience sampling technique was used. The findings shows that Majority of the pregnant women 14 (93.3%) had no risk in vaginal delivery and 1 (6.7%) had risk in vaginal delivery. Majority of the pregnant women 13 (86.7%) had no risk in LSCS delivery and 2 (13.3%) had risk in LSCS delivery. The mean score of effectiveness of the mode of delivery among COVID - 19 pregnant women in vaginal delivery group was 9.07 ± 1.100 and the mean score in the LSCS group was 7.33 ± 1.496 respectively. The study shows that Majority of the postnatal mothers have no risk in vaginal delivery than the LSCS.*

Keywords: mode of delivery, COVID- 19, postnatal mothers, spontaneous delivery and lower caesarean section

1. Introduction

Pregnancy is one of the most pleasant and at the same time most critical periods in the life of most women. It involves a host of new and unprecedented emotions and experiences. Unfortunately, with the onset of the COVID - 19 epidemic, pregnancy and childbirth for women are taking place in utterly new and unusual circumstances. Childbearing women and new born infants continue to require safe family centered care during the current COVID - 19 pandemic and they represent a vulnerable population. In 108 pregnancies infected with COVID - 19, 50 women were delivered, 44 gave birth by caesarean section and only 6 women gave birth by vaginal delivery.

The World Health Organization (WHO), Royal College of Obstetricians & Gynecologists and the Royal College of Midwives value equally each mode of delivery, however, opportunities should be provided to enable every woman to unlock their expectations and needs. Mode of birth should not be influenced by the presence of COVID - 19, unless the woman's respiratory condition demands urgent intervention for birth. In a symptomatic woman who is becoming exhausted or hypoxic, an individualized informed choice should be made regarding the possibility of shortening the length of the second stage of labor with elective instrumental birth.

The pregnant women with clinical diagnosis of COVID - 19 in the obstetric isolation ward and compare with pregnant women without COVID - 19 in the general ward of our hospital. We also analysed the prognosis of neonates delivered by pregnant woman with clinical diagnosis of

COVID - 19 to assess the effects of vaginal delivery on pregnant women and new - borns.

Caesarean section is not a recommended method of childbirth in pregnant women infected with COVID - 19, however this was the mode of delivery in the majority of cases with foetal distress cited as the indication behind the clinical decision. Moreover, 'foetal distress' is not justified by abnormal cardiotocography findings or other factors like meconiumstained amniotic fluid, abnormal foetal scalp lactate or blood flow changes. There was no evidence of COVID - 19 in the amniotic fluid, umbilical cord blood, and neonatal throat swab or breast milk samples. Vertical transmission was reported as negative in all neonates.

In Worldwide, CS rates are rising, and action needs to be taken, as was expressed in a recent Lancet series. CS rates in women with COVID - 19 are even higher than in the general population. Protecting mothers from unnecessary medical technologies is one of the World Health Organization (WHO) strategies to promote maternal health. Under these circumstances, the role of midwife is more recognized as an advocate of natural birth for women.

Aim of the study:

The aim of the study was to assess the mode of delivery among covid - 19 postnatal mothers.

Objective:

- To assess the mode of delivery among postnatal mothers.
- Association between the modes of delivery among COVID- 19 postnatal mothers with their demographic data.

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2. Research Methodology

The research approach used for this study was quantitative research approach. A descriptive research design was used to assess the mode of delivery towards risks faced during delivery in pandemic situation among postnatal mothers at SMVMCH, Puducherry. By using convenience sampling technique 30 sample was selected for the present study. The tool consists of demographic data and questionnaire.

Research Setting:

The study will be conducted at Sri Manakula Vinayagar Medical College and Hospital, it consist of 1050 - bedded hospital in Puducherry. The population of the study all postnatal mothers admitted at SMVMCH, Puducherry.

Description Of The Tool:

The tool used for this study consists of 2 sections namely,

Section A: Demographic Variables

Age, religion, educational status, occupation of the mother, diet pattern, type of marriage, having any comorbid disease, weeks of gestation, gravida, previous history of COVID 19, previous knowledge about COVID 19, source of information.

Section B: Knowledge questionnaire regarding mode of delivery among COVID- 19 pregnant mother

In this study was structured knowledge questionnaire was used, consists of 25items.

Data Collection Procedure

The data collection was done and got permission from the authorities of the concerned person from Sri Manakula Vinayagar Medical College and Hospital, Puducherry.30 postnatal mothers were selected by using convenience sampling techniques and according to the inclusion and exclusion criteria and after introducing and explain the purpose of the study. The tool consists of demographic variables and knowledge questions were administered to respondents and data was collected.

3. Results

The major findings of the study were;

- Majority of the pregnant women 14 (93.3%) had no risk level of vaginal delivery and 1 (6.7%) had risk level of vaginal delivery.
- Majority of the pregnant women 13 (86.7%) had no risk level of LSCS delivery and 2 (13.3%) had risk level of LSCS delivery.
- The mean score of effectiveness of the mode of delivery among covid - 19 pregnant women in vaginal delivery group was 9.07 ± 1.100 and the mean score in the LSCS group was 7.33 ± 1.496 respectively.
- Association depicts that the demographic variable Educational status ($p = 0.001$) and having any comorbid disease ($p = 0.001$) had shown statistically highly significant association between the levels of the mode of delivery among covid - 19 pregnant women with selected demographic variables in vaginal delivery.

Assessment of the Mode of Delivery among COVID- 19 Pregnant Women in Vaginal Delivery and LSCS.

Table 1: Frequency and percentage wise distribution of the level of mode of delivery among COVID- 19 pregnant women in vaginal delivery group. (N = 15)

Level of Mode of Delivery	Frequency	%
High Risk	0	0
Risk	1	6.7
No Risk	14	93.3
Total	15	100
Mean	9.07	
Standard Deviation	1.100	

Table 1 shows Frequency and percentage wise distribution of the level of mode of delivery among covid - 19 pregnant women in vaginal delivery group. Majority of the pregnant women 14 (93.3%) had no risk level of mode of delivery and 1 (6.7%) had risk level of mode of delivery. The mean and standard deviation of the level of mode of delivery among covid - 19 pregnant women in vaginal delivery group is (9.07 ± 1.100) respectively.

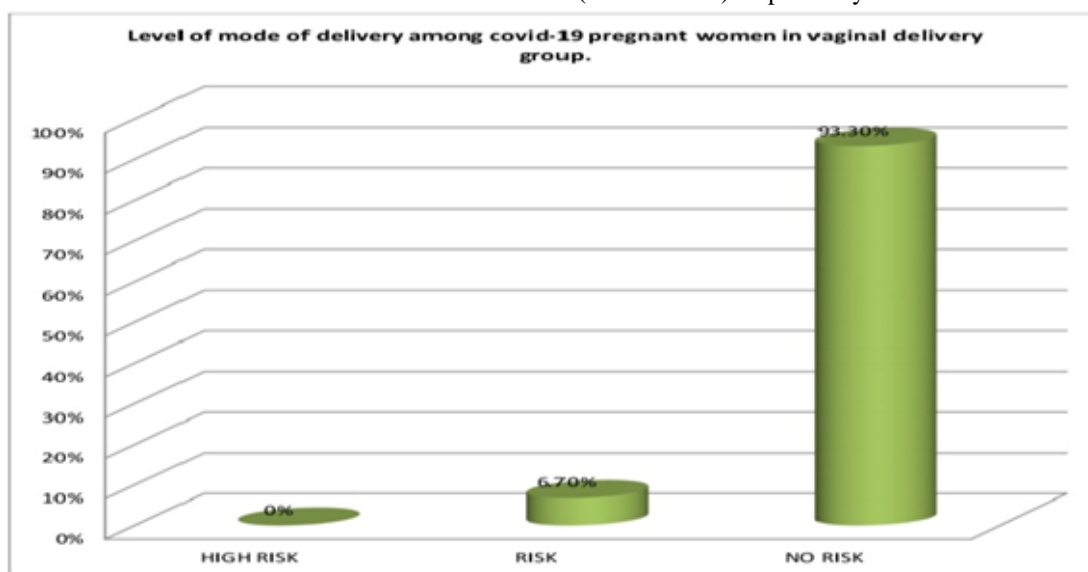


Figure 1: Shows that level of mode of delivery COVID- 19 postnatal mothers in vaginal delivery group.

Table 2: Frequency and percentage wise distribution of the level of mode of delivery among covid - 19 pregnant women in LSCS group, (N = 15)

Level of Mode of Delivery	Frequency	%
High Risk	0	0
Risk	2	13.3
No Risk	13	83.7
Total	15	100
Mean	7.33	
Standard Deviation	1.496	

Table - 2 shows Frequency and percentage wise distribution of the level of mode of delivery among covid - 19 pregnant women in LSCS group. Majority of the pregnant women 13 (86.7%) had no risk level of mode of delivery and 2 (13.3%) had risk level of mode of delivery. The mean and standard deviation of the level of mode of delivery among covid - 19 pregnant women in LSCS group is (7.33 ± 1.496) respectively.

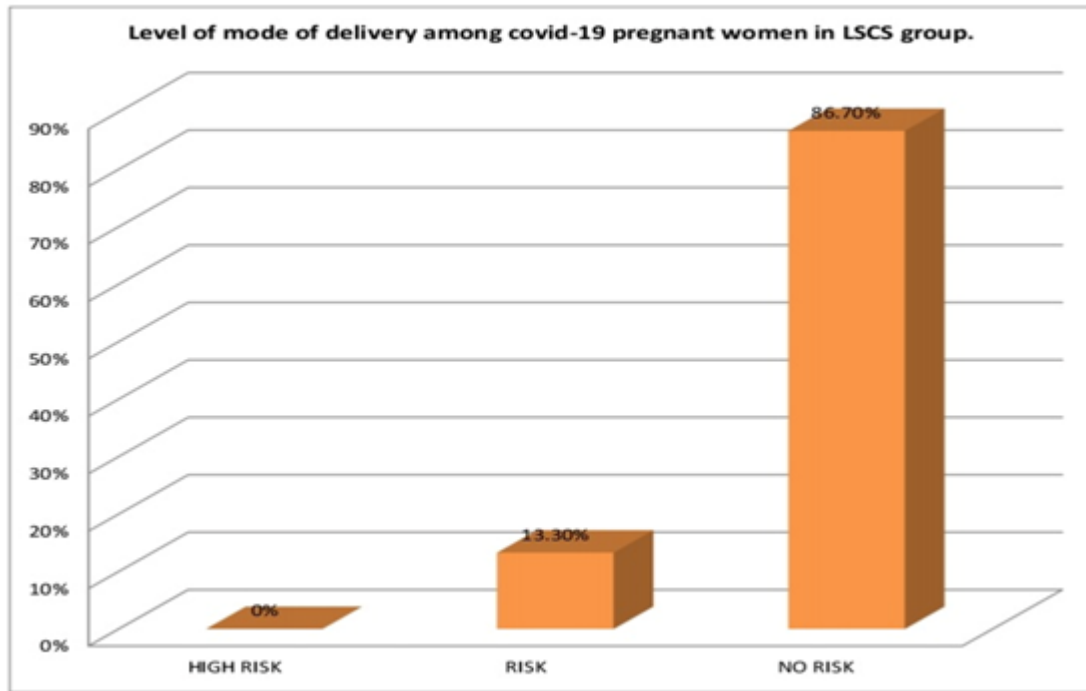


Figure 2: shows that level of mode of delivery among COVID - 19 postnatal mothers in LSCS group

4. Conclusion

In mode of delivery, the COVID- 19 risk level was very less in both the deliveries and there is no effects in both the mother and neonates in this study.

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