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Case Series

The breastfeeding experiences of mothers with COVID-19 infection in a selected hospital, South India

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ABSTRACT

Breastfeeding is the natural way of feeding a new-born. The COVID-19 scenario makes breastfeeding more challenging than usual periods. This study aimed to describe the breastfeeding experiences of mothers with COVID-19 infection. Qualitative data were collected from thirteen COVID-19-infected immediate postnatal mothers through google form questionnaires and in-depth interviews. The COVID-19 infected mothers faced difficulties in feeding their babies. Some of the mothers couldn't be fed colostrum. Severe stress, lack of family and professional support, COVID-19 infection, and inadequate breastmilk production are the hindering factors affecting the breastfeeding habit of mothers. The main breastfeeding problems are apprehension of spreading the infection to the baby, physical separation due to COVID-19 infection, difficulty in latching, and reluctance to breastfeed after formula feeding. Even though there are lots of problems in breastfeeding among mothers and babies, breastfeeding must be initiated and maintained for the benefit of the mother and baby.

Keywords Breastfeeding, COVID-19, Mothers, Experiences, Case report

INTRODUCTION

The COVID-19 pandemic due to the novel coronavirus has engulfed the world since December 2019.¹ As of September 2021, there are 218,946,836 confirmed cases and 4,539,723 deaths due to COVID-19 infection.² Hence the coronavirus is known to be transmitted through respiratory droplet infection, it is essential to follow global infection prevention practices such as social distancing and lockdown measures.³ Every aspect of human life has been affected by this pandemic and subsequent lockdown. The maternal-infant dyad also faces difficulties during these times, especially with the practice of breastfeeding.⁴

Breast milk is a natural food for newborns and is considered to be a gold standard. According to WHO, breastfeeding means the child has received breastmilk directly from the breast or expressed.⁵ Breastmilk satisfies all the essential needs of a newborn such as warmth, food,

and protection. Breast milk contains all the nutrients and antibodies like IgA which protect against infection.⁶

WHO recommends that mother with suspected or confirmed COVID-19 can breastfeed their babies by following the infection control measures such as wearing a mask, and washing hands with soap or sanitizer before and after contact with the baby. If the mother is severely ill with COVID-19 infection and not in a position to give direct feeding can give the expressed milk to the baby.^{7,8}

Even if breastfeeding is encouraged by all professional bodies, it is discordant with social distancing- it cannot occur at 3.66 m, nor are 1.83 m. Mask wearing and exposure time also problematic. However, fortunately, to this date, there are no clearly proven cases of vertical transmission of COVID-19 through human breast milk or breastfeeding.⁹ On the other side it is identified in human milk from a COVID-19 positive woman, an increased

amount of IFN α and an increased percentage of macrophages expressing IFN α in her breast milk. This may contribute to some level of protection of breastfeeding infants from COVID-19 infection or symptomatic COVID-19 infection.¹⁰

Even though it is essential to breastfeed a baby for the betterment of mother and baby, the COVID-19 positive mother is facing lots of issues and problems during breastfeeding. In this study, we are presenting a series of cases of immediate postnatal mothers with COVID-19 infection and their breastfeeding experiences including breastfeeding practice, problems, and factors associated with the same.

CASE SERIES

A case study was conducted among 13 immediate postnatal mothers who were delivered to a tertiary care center. The data was collected from September 2020 to August 2021.

The mothers were consecutively enrolled until the data saturation occurs. All mothers were tested COVID-19 positive (RT-PCR test) 1-15 days before delivery. But case number - 2 was infected with COVID -19 on the day of delivery. The median age of the mothers is 26 years (range-41-21). The median gestational age at the time of delivery is 38 weeks. Majority of mothers was multigravida. Most of them underwent caesarean session. Case number 1, 5, 8, and 10 had gestational diabetes mellitus during pregnancy. Hypothyroidism is seen among cases 3 and 11. Cases 8 and 12 had DCDA twin pregnancy. During pregnancy case number 9 was affected with Rh negative pregnancy and urinary tract infection. It is interesting to note that around 30% (n=4) of mothers had gestational diabetes mellitus in pregnancy. The characteristics of the mother are shown in Table 1.

The data was collected using google form questionnaires and in-depth phone call interviews and analyzed by descriptive analysis.

Table 1: General characteristics of the mothers infected with COVID-19.

Cases	Age in years	Gestational age in weeks at delivery	Gravida	Infected with COVID-19 antedated to delivery	Type of delivery	High-risk factors associated with pregnancy
1	41	38	Multi	1 day	LSCS	Gestational diabetes mellitus
2	21	38	Multi	Day of childbirth	Normal	Nil
3	27	39	Multi	14 days	Normal	Hypothyroidism
4	21	37	Primi	2 nd day	Normal	Nil
5	25	38	Primi	3 rd day	Normal	Gestational diabetes mellitus
6	32	38	Multi	2 nd day	Normal	Nil
7	25	38	Multi	2 nd day	LSCS	Nil
8	26	31	Multi	3 rd day	LSCS	Gestational diabetes mellitus, DCDA twin pregnancy
9	29	38	Multi	5 th day	LSCS	Rh negative pregnancy, UTI
10	33	36	Multi	8 th day	LSCS	Gestational diabetes mellitus
11	26	30	Primi	2 nd day	LSCS	Hypothyroidism, cervical insufficiency
12	24	36	Multi	2 nd day	LSCS	DCDA twin pregnancy
13	23	40	Primi	11 th day	LSCS	Nil

Table 2: Practice of breastfeeding among mothers infected with COVID-19.

Cases	The practice of feeding colostrum	Time of initiation of breast-feeding	Mother and infant separated due to COVID-19 infection	Allowed to breastfeed the infant during COVID-19 infection	The practice of formula feeding	The practice of expressed breastfeeding
1	No	4th day of birth	No	Yes	Yes	No
2	No	Within 30 minutes of Birth	No	Yes	Yes	No

Continued.

Cases	The practice of feeding colostrum	Time of initiation of breast-feeding	Mother and infant separated due to COVID-19 infection	Allowed to breastfeed the infant during COVID-19 infection	The practice of formula feeding	The practice of expressed breastfeeding
3	Yes	Within 2 hours of birth	Yes	Yes	Yes	No
4	No	Within 30 minutes of Birth	No	Yes	Yes	Yes
5	Yes	Within 2 hours of birth	No	Yes	Yes	No
6	Yes	Within 2 hours of birth	No	Yes	Yes	Yes
7	No	Not given	Yes	No	Yes	No
8	No	Not given	Yes	No	Yes	No
9	Yes	Within 30 minutes of Birth	No	Yes	Yes	No
10	No	Not given	Yes	No	Yes	Yes
11	No	Not given	Yes	No	Yes	Yes
12	Yes	Within 2 hours of birth	No	Yes	Yes	No
13	Yes	Within 30 minutes of Birth	No	No	No	Yes

DISCUSSION

The practice of breastfeeding among mothers infected with COVID-19

The breastfeeding practices of COVID-19 infected mothers are shown in Table 2. Majority of the mothers 62% (n=8) breastfed their baby within 2 hours of childbirth. Four mothers (cases 7, 8, 10 and 11) didn't initiate breastfeeding during the first days of life. Case number 7 had initiated breastfeeding on the 17th day of birth because the baby had a congenital anomaly of Transposition of the great arteries (TGA) and underwent open-heart surgery on the 4th day of birth. Case number 8 had twin pregnancy and both the babies were low birth weight (baby 1-2.1 kg, baby 2-1.9 kg). The twin babies were admitted to the NICU and hence the mother has given expressed breastfeeding to them along with formula feeding. Baby of case number 10 has 2.17 kg birth weight and the baby was admitted to NICU during the first day's life at the same time mother was sick due to COVID-19 related problems and she couldn't breastfeed her baby. When the mother became healthy, she feared getting COVID -19 infection to the baby from her, so she followed formula feeding to the baby. Case number 11 also couldn't breastfeed as her baby was admitted to the NICU due to preterm birth and low birth weight. She fed her baby with formula feed and expressed breastfeeding.

Factors affecting breastfeeding

Most of the mothers (n=10) expressed as the major restrictive factor of breastfeeding as the severe stress related to COVID-19 infection. Cases 4, 9, and 12 viewed that as they are isolated from family members due to the COVID-19 infection, there is no one to support breastfeeding during the initial days of childbirth. Lack of prenatal classes on lactation due to COVID-19 lockdown was counted as an averting factor of successful breastfeeding among cases 3, 4, 5, 6, 9, 10, 11, and 12. Some mothers reported a lack of professional support also. Cases 4, 7 reported that due to COVID-19 illness they were tempted to opt for formula feeding.

Breastfeeding problems among mother and baby

The major psychological problems among mothers (n=11) were fear of spreading the infection to the baby and physical separation from family members. Cases 1, 2, 4, 5, 10, and 11 stated that they had inadequate breastmilk production. Some mothers reported (case no. 2,4, and 10) that they were lacking confidence in holding the baby during breastfeeding. Cases 1, 4, 5, 7, 10, and 13 had faced difficulty in latching while breastfeeding. Some babies (cases 4, 7, 10) showed reluctance to breastfeeding after formula feeding.

CONCLUSION

The international organizations are unitedly agreed to promote breastfeeding among COVID-19 positive mothers to boost the immunity power among newborns and thus protecting them from COVID-19 infection. Even though the mother is practicing the infection control measures, there is a chance of getting the infection to the baby. Some mothers are anxious about the same and are reluctant to feed the baby. So, breastfeeding mothers with COVID-19 infection should be supported enough to improve their confidence level. If they can't practice direct breastfeeding, they should be taught regarding the possibilities of expressed breast milk and human milk banking.

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