



COVID – 19 and Gravid Mothers

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ABSTRACT

Human history is observing a very horrible and strange situation fighting a very small enemy. The Novel COVID-19 corona virus. On 11 feb 2020 world health organization has declared a name for covid disorder and has said covid as a global public health disease and also as a pandemic due to its worldwide spread. It started as an outbreak in december with its birth place in wuhan people of china has came out as a global public health exigency of worldwide trouble. Corona virus are the group of virus with non segmented, single stranded and positive sense RNA genome. In this narrative review article, reference was taken from different article published in various database. Maximum article including the information of pregnancy and covid-19 were reviewed. A review of 11 article with world health organization site information it is found that the symptoms of corona virus disease in non-pregnant occurred indistinguishable to that of gravid mother. There is no information regarding perinatal transmission in parturiency. It has been disclosed that corona virus can cause distress in gravid mother, miscarriage and also fetal distress. In general due to lack of relevant information regarding the effect of corona virus disease on gravidity it is obligatory to have more and more studies in this area.



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INTRODUCTION

The major component of contagious disorder is the supervision of almost all unsafe population. And

in this unsafe population gravid mother are found to be inordinately affected by corona virus disease and is related to raised infectious morbidity and inflated. Maternal mortality ([Dashraath et al., 2020](#)). There are anatomical and physiological adaptive changes with immuno compromised status during pregnancy which makes them more susceptible to covid-19 ([Luo and Yin, 2020](#)). Passing on of corona virus from one person to another has been proved to occur ([Chen et al., 2020a](#); [Li et al., 2020](#)). Perhaps even from asymptomatic patients ([Rothe et al., 2020](#); [Chen et al., 2020b](#)). And it has been seen that the mortality of corona virus disease is more particularly between the senior citizens with comorbidities ([Wu and McGoogan, 2020](#)). As covid-19 is spreading very rapidly foetal safety and maternal management became a major concern. It is said that

corona virus is one of the leading cause of pregnancy death worldwide (Panahi *et al.*, 2020). There are limited clinical experiences in managing a pregnant woman with corona virus disease due to very less studies. The total information of this is not yet gathered. Covid-19 has shown serious consequence for pregnant women. There appears the risk of miscarriage, Intrauterine growth restrictions, preterm birth, premature rupture of membrane etc. Nevertheless, it is relieved that the gravid women with corona virus disease will be showing the same clinical features as that of in non pregnant adults. However, there are no evidences suggesting the transplacental transmission and transmission from breast milk or either virus discharge through vaginal canal too is unknown. The treatment includes the antiviral therapy as well as the important utility of chloroquine in treatment of corona virus disease with supportive therapy.

The corona virus disease is silently seems to be developing like fire all over the globe and known to be more infectious in pregnant women. Hence this vulnerable group of the gravid mother are more likely to be experiencing the disorder in many different regions. The research sets one's sight on to analyse the past published evidences and hence summarized some important clinical aspects with complications, precautions and management of covid -19 during pregnancy.

MATERIALS AND METHODS

This research is a descriptive analysis farmed to gather reviewed article on the affect of corona virus disease on gravid mother. In this review all the possible article has been searched which are published in various database. The abstract and result of all the article were analyzed and the important things have been summarized.

Observation and Result

After studying the review articles following things were observed.

Sign and symptoms

The clinical features which are seen in pregnant women are said to be same as that of the non-pregnant women, which includes cough, fever, dyspnoea and lymphopenia (Dashraath *et al.*, 2020).

In addition to the above listed symptoms other symptoms are chest pain, lethargy and weakness (Karimi-Zarchi *et al.*, 2020).

Transmission

There are very restricted proves on vertical transmission of corona virus disease during parturiency,

child birth and post-partum period. Presently there has been no proves for vertical transmission of corona virus disease from infected gravid mother to her baby. However, it is well-known fact that corona virus disease can be transmitted through respiratory droplets during breastfeeding from mother to her baby. Presently there are no evidences of transmission of corona virus disease from breast milk (Karimi-Zarchi *et al.*, 2020). But on the other hand the study showed that there is conceptual risk of transplacental transmission alike SARS (Dashraath *et al.*, 2020).

Breastfeeding in infected mother

According to WHO, the mother with corona virus disease if she wants to do so. Yet with taking some important precautions like wearing mask, washing hands after and before touching or handling the baby. But in case the mother is not well for breast feeding the new born due to corona virus can provide there baby with breast milk in the way possible, available and acceptable. Which includes 1. Expressing milk 2. Donor's breast milk 3. Relactation (WHO) (WHO, 2020).

Complications in Parturiency due to covid-19

Maternal complications

The maternal complications includes respiratory distress, coagulopathy accompanied with liver dysfunction (Panahi *et al.*, 2020). Additional complications may compromise septic shock, cardiac injury(WHO).

Foetal complications

The foetal complications can include preterm birth (39%), (IUGR 10%) miscarriage (2%).

There will be febrility with temperature 38.1-39.0 (Dashraath *et al.*, 2020).

Treatment

Pregnancy -specific management and symptomatic treatment of complication during pregnancy and respiratory distress compromise the current standards of care (Dashraath *et al.*, 2020).

Antiviral therapy

Choloquine phosphate is a omni-present drug and is found to be a very important antimalarial quinolone compound with immuno-modulating activities and a broad spectrum antiviral activity. It works by increasing the endosomal pH which is required for cell fusion and also found to block the corona virus infection (Dashraath *et al.*, 2020).

It is found that the drug is having significantly lower plasma drug concentration suggesting its high dose (Dashraath *et al.*, 2020).

Supportive Therapy

The supportive therapy includes nutritional support, proper water intake and electrolyte balance should be maintained (Chen *et al.*, 2020a). It is very crucial to check renal function, liver function, arterial blood gases, and cardiac enzyme as per clinical situations (Liang and Acharya, 2020).

Obstetric management

In the Contagious disease where social distancing is observed to be the most efficient way of fighting the virus. The newborn care should also be practiced by the same method (Dashraath *et al.*, 2020).

Precautions during Pregnancy

The gravid mother should take the precautions in order to avoid the infection. Things to follow are,

1. During feeding wear mask for respiratory hygiene(WHO).
2. Frequently washing hands with soap or alcohol based hand rub.
3. Avoiding crowded places.
4. Maintaining safe distance between each other.
5. Avoid frequent touching to nose, mouth and eyes.
6. Always cover your mouth when ever you sneeze.
7. Wash your hands before handling the baby. (WHO)

RESULTS AND DISCUSSION

Covid-19 the disease which is spreading very quickly. All the clinical symptoms with treatment are exactly similar with other adult. The only thing is due the immuno compromised status of the pregnant women it is found that this group of patients are more vulnerable. Based on the findings of this study there are no authentic researches based on the viability of vertical transmission of corona virus disease from gravid mother to babies. The suspected or infected mother should be properly monitored before and after the delivery. All the possible preventive measures should be followed to stop the neonatal transmission. The women and her newborn should be properly kept in isolated rooms and proper care should be taken. It is also found that the mother is treated with some antiviral drugs. It

has been told in the research article named Covid-19 pandemic and pregnancy that Chloroquine phosphate is a very useful drug. Along with this Antiviral therapy it has been told that supportive therapy plays a crucial role in treating the patients. In the researched article by Huanliang and Ganesh Acharya it is told that enough rest, proper water intake, appropriate nutritional support with electrolyte balance and also monitoring the vital signs and oxygen saturation is very important to treat a patient suffering from covid-19 disease (Liang and Acharya, 2020). When it comes to obstetrics care it has been told in the article named covid-19 pandemic and pregnancy that distancing ourselves socially is the only way by which the baby can be prevented by getting diseased. Considering this research by Chen *et al.* in china by taking 9 gravid women with corona virus the result which came out was that none of the neonate had the postpartum complication (Chen *et al.*, 2020b). But according to some other article it has been found that mother and the newborn both can have severe complications including preterm delivery, respiratory distress, foetal distress etc (Dashraath *et al.*, 2020; Panahi *et al.*, 2020). Whereas World health organization has suggested some rules and instructions which suggests that breastfeeding will not be the mode of transmission if proper respiratory hygiene is maintained. It has been seen that there are less number of studies which have been carried on this topic and hence proper conclusion can't be taken out and that's why more studies in this area are recommended.

CONCLUSION

The spread of corona virus disease is continuously increasing all over the globe and because of this there is need to prepare ourselves very properly and productively. Our goal should be providing proper clinical management and support to each and every patient. Proper planning should be done and a multidisciplinary team should be made in order to treat and manage the patients. Each and every person should be made to understand the seriousness of the disease and self protection should be the first priority. A review of 11 article with WHO site information it is found that the That the major symptoms of corona virus disease in gravid mother are similar to those of the other adults. In general because of lack of proper and enough information about the effect of corona virus on parturiency it is necessary to have more and more studies in this area.

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Conflict of Interest

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