

Obstetric Considerations in The Novel Coronavirus Disease

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Received Date: 03-28-2020; Accepted Date: 04-13-2020; Published Date: 04-20-2020

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Abstract

Viral diseases have always been a challenge to the medical science particularly because of their easy mode of transmission and the complexity of treatment. The global coronavirus disease (COVID- 19) pandemic has raised greater concerns among the researchers. Till date there are no vaccines or definitive treatments available. Pregnancy, although not a disease or state of impaired health, can influence the transmission or progression of the disease. With limited evidences available on COVID-19 and pregnancy, this review is an attempt to highlight certain consideration in pregnancy and during post-partum period.

Keywords

Coronavirus disease; Respiratory syndrome; Obstetrics; Pregnancy.

Introduction

Coronavirus is a larger family of viruses that cause illnesses such as the common cold, severe acute respiratory syndrome (SARS), and the Middle East Respiratory Syndrome (MERS). A new outbreak of the coronavirus erupted in 2019 in China. The novel Coronavirus disease is significantly impacting the global burden of disease today. Although the disease exhibits a relatively lower percentage of death rates, the unusual pace of disease transmission puts the medical fraternity into a dilemma that the world has ever witnessed. Any infectious disease including bacterial, viral and fungal are of greater concern during pregnancy. To date, very limited information is available in the literature on pregnancy and COVID-19.

Disease Transmission and Screening

Recent studies demonstrate that people may acquire the coronavirus through air and on contact with contaminated surfaces or objects. It is detectable up to 3 hours in aerosols, 4 hours in copper, 24 hours in cardboard and up to 3 days on stainless steel and plastic surfaces; this reveals an obvious transmission through relatively casual contact. Thus, pregnant women are also at increased risk of contracting COVID-19 [1]. According to the Royal College of Obstetricians and Gynecologists, pregnant women infected with the novel coronavirus are not likely to develop severe illness due to the disease compared to other healthy adults who develop the disease. The symptoms are likely to be flu-like in nature. However the likelihood of developing severe complications in pregnant subjects who are seropositive for coronavirus is not well documented. Chances of vertical transmission from mother to the baby are reported, although this is not supported scientific evidences [2]. Chen et al. found no evidence of COVID-19 in the amniotic fluid or cord blood of 6 infants of infected women [2]. Screening is mandatory for all patients reporting to the outpatient departments irrespective of their purpose of visit. There are different types of coronavirus tests that can be done [3]:

- Swab Test – A special swab is used to take a sample from nose or throat
- Tracheal aspirate – Sample taken from lungs with bronchoscope
- Sputum Test – Sputum is subjected for analysis.
- Nasal aspirate – Saline infusion into the nose followed by light suction.
- Blood test – Most commonly performed test but invasive.

Reducing the Risk of Viral Transmission

The precautions to be taken are similar to those be taken by the healthy counterparts which include:

1. Regular hand sanitization.
2. Universal precautions to be followed to prevent transmission through cough, sneeze etc.
3. Avoid direct or indirect contact with individual suspected having covid19.
4. Limiting public transport usage.
5. Limiting public gatherings.
6. In unavoidable circumstances such as checkups at the physician, consider using triple layered mask should be considered.

Breastfeeding in COVID- 19

Limited studies conducted on COVID-19 positive women and SARS- CoV (Severe Acute Respiratory Syndrome) could not detect the virus in breast milk. A confirmed covid-19 mother who is symptomatic should take all the possible precautions to avoid transmitting the

disease to the infant, including hand sanitization and triple layered mask if possible while breastfeeding [2,4].

Summary and Conclusion

Preterm delivery has been reported in very few cases for COVID-19 positive mothers which is not supported by significant evidence. During acute illness, it is recommended that pregnant women may be subjected to additional antenatal surveillance. The mode and timing of delivery may be determined by usual obstetric practice. The youngest baby to be born who was COVID-19 positive was a 36 hour old neonate, who is suspected to have neonatal transmission and not vertical. Additionally, in 2016 when Zika was first discovered, the effects on neonates weren't fully understood until later. When it comes to COVID-19, there are cases of preterm births in COVID-19 positive mothers. Thus, there might be complications with fetal lung maturity even after betamethasone administration [6]. CDC recommends temporary settings such as separate rooms for a woman with confirmed COVID-19 or who is a PUI for COVID-19 from her infant until the woman's transmission-based precautions are discontinued [5]. Women may also benefit from psychological counseling during the course of the disease.

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