Review Article

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Challenges to Women's health during pregnancy in COVID era-Review Article

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ABSTRACT

The COVID-19 pandemic had multitudinous implications on the healthcare needs and the care provided to normal obstetric patients as well as those affected by the virus. Antenatal checkup, labor, delivery, and breastfeeding guidelines for COVID-19 positive patients are the important components in mother childcare. Pregnant women and importantly, new mothers face unique challenges in this pandemic situation. Noteworthy of these are the mental and physical healthcare requirements. Moreover, they are vulnerable to multiple social issues including domestic violence. The aim of this review was to delve into this important aspect in the current literature on both the direct ramifications of catching COVID-19 during pregnancy and the indirect repercussions of the pandemic for pregnant women's health, because of the ways in which containment and social distancing measures have derailed daily life.

Keywords: COVID-19; Pregnancy; Transmission Route; Telemedicine Clinic; Newborn Care

Introduction

COVID-19 emanated initially from Wuhan, China at the end quarter of 2019 [1,2]. It has speedily spread across the world. It has, infected millions of people directly and indirectly [2,3]. It has been observed that severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) poses more terrible outcomes for males as compared to women [3-5]. However, there has been a valid concern about whether pregnant women are more susceptible to this infection and if they have more frightful disease outcomes.

The pandemic had multitudinous implications on the healthcare needs and the care provided to normal obstetric patients as well as those affected by the virus. Furthermore, protocols were implemented to provide ideal care to pregnant women during the antenatal period, during labor, and the postnatal period. Antenatal checkup, labor, delivery, and breastfeeding guidelines for COVID-19 positive patients varied based on the institution and country [4-6]. The aim of this review was to delve into this important aspect in the current literature on both the direct ramifications of catching COVID-19 during pregnancy and the indirect repercussions of the pandemic for pregnant women's health, because of the ways in which containment and social distancing measures have derailed daily life.

Methods

We did search on PubMed, Medline database publications using: COVID-19, childbirth; pandemic; transmission route, pregnancy and telemedicine clinic. The publications included were special communications, reviews, conferences papers, books and research studies regarding the subject matter over last 18 months.

Discussion

COVID-19 pandemic has affected policies on healthcare infrastructure, social activities, and importantly the global economy, all of which may affect negatively the maternal health. Pregnant women and importantly, new mothers face unique challenges in this pandemic situation. Noteworthy of these are the mental and physical healthcare requirements. Moreover, they are vulnerable to multiple social issues including domestic violence. All this has brought to light the limitations of resources such as limited health care staff, the unpreparedness of the available staff in terms of training to deal with this special situation, scarcity of masks and related manpower [6-8].

Most of the COVID-19 cases present with sore throat, cough, fever, and fatigue, bouts of diarrhea, abdominal pain, nausea, and loss of sense of smell. Others might have a severe presentation of pneumonia and in some cases, respiratory failure caused by acute respiratory distress syndrome (ARDS). In more severe forms multi-organ failure; advanced renal failure, myocarditis, and even death can be the outcome [9-11]. During the pregnancy period, women undergo significant anatomic, physiologic, and immunologic alterations to support and protect the developing fetus. These changes can increase the susceptibility of pregnant individuals for increased risk of infection with respiratory viruses. Thus, pregnant women and their children may be at an inflated risk for infection with SARS-CoV-2 [5]. Pregnant individuals infected with the Covid-19 virus were also found to be at an increased risk of more awful symptoms than women who were not pregnant [8-10].

Several publications have reported that the most common adverse outcome seen in the pregnant population was preterm delivery [12-15]; and increased prevalence of low birthweight and Cesarean-section (C-section) delivery were also observed [13-16]. Other obstetric complications and outcomes included maternal death, stillbirth, miscarriage, preeclampsia, fetal growth restriction, coagulopathy, and premature rupture of membranes which were rare, but prevalent [17-18]. More importantly, pregnant women infected with Covid-19 may require different thresholds for oxygen supplementation and ICU care, compared to the general population due to decreased respiratory reserve in pregnant women and the increased demand by the fetus for maternal oxygenation. As resources become limited, the specific allocation of respiratory equipment and ICU care for pregnant patients was needed, especially in developing countries [16-18].

There were many indirect challenges that pregnant patients had to face during the pandemic, aside from the direct consequences of the virus on their reproductive and perinatal health. Various studies deduced that prenatal care visits to the hospital had decreased during the pandemic. It was due to factors including strain on the healthcare system, lack of ample infrastructure. Moreover, potentially harmful policies were put into practice based on little evidence in high and low/middle-income countries [16-19]. The difficulties faced by healthcare providers alongside pregnant people span all aspects of care including outpatient communication, patient screening, labor management, breastfeeding, and postpartum bonding between the mother and her newborn. Furthermore, all obstetric patients had to undergo a screening process, based on the institution's guidelines for planned procedures like inductions or C-sections [18-22].

In New York, many pregnant women had a frightening view of visiting hospitals for childbirth because they were scared of being infected themselves or feared vertical transmission [23]. Few of the states in India have recorded a decrease in cases of institutional deliveries since the first wave of the pandemic [24].There has been an increase in the number of deliveries conducted at home in developing countries like Bangladesh [25] and Nepal [26]. Initial reports suggested an increase in the incidence of C-sections in the pregnant population. It included those infected and the uninfected by the virus. For example, early estimates from Wuhan, China; Chen, et al. [27] found a C-section occurrence of 93% [27].

A comprehensive review of care guidelines from international perinatal societies and institutions found that most hospitals either recommended no visitors or one asymptomatic support person during labor and delivery. Moreover, an expedited discharge was recommended by the American College of Obstetrics and Gynecology, the Catalan Health Service, and the Society for Maternal and Fetal Medicine [28]. Given the documented benefits of labor

support [29], reducing access to a support person may increase the incidence of C-section delivery and decrease maternal satisfaction with labor and delivery experiences. Furthermore, expedited discharge may diminish the ability of the obstetrician and the nursing team to identify and treat postpartum complications. The lack of direct support to pregnant women by their family members during labor paved the way for healthcare institutions to implement frequent reciprocal communication with patients to mitigate stress [30].

There were numerous studies on the prevalence of mental health issues in pregnant women that shed light on depression and anxiety caused by the illness as well as the socio-economic battles that women had to face due to the pandemic. During pregnancy, self-reported rates of clinically relevant anxiety and depressive symptoms were higher among pregnant women relative to their retrospectively self-assessed pre-pandemic levels. There was also an increase in levels of anxiety and depression seen in obstetric patients when compared to non-pregnant individuals in a multicenter cross-sectional study performed in China by Y Wu, et al. [30] In the same study, thoughts of self-harm were also more frequent during the pandemic than compared to the pre-pandemic era [30]. The lockdown and movement restriction has caused difficulty for many pregnant women in reaching health care facilities and has not only prevented them from receiving timely care but has also led to increased levels of stress in these women [31,32]. Due to the global economic slowdown caused by the pandemic, women were more likely to lose their income than men, and working mothers struggled with increased childcare demands. Furthermore, Domestic violence in women appeared to spike.

The Covid-19 pandemic has confronted health care policy makers with a horde of questions regarding the ideal policies to mitigate the spread of SARS-Cov-2 while minimizing the inadvertent detrimental effects on family wellbeing and gender equity. Models of antenatal and delivery care need to be formulated. Moreover, economic relief policies are required to protect gender equity not only in the workplace but also for family wellbeing. All these facts, justify a strict adherence to the social distancing policy. Providing healthcare staff and patients with surgical masks is essential. Moreover, utilization of N95 masks should be made imperative in situations where staff who are in close contact with COVID-19 proven patients or suspicious of it. During the labor stage (specifically during delivery), effective face-masking for patients may not be possible, so the provision of a supplementary visor to health care staff is an important step for the safety of the staff involved in the labor room [33,34].

To cope with social distancing measures, in few some areas of the UK, women were given blood pressure machines and urinalysis sticks to run their own antenatal checks. Moreover, antenatal care provision via telemedicine was put in practice, however there were variations in practice patterns regionally. Some people expressed reservations about the impacts of minimized contact on the quality of maternity care. Furthermore, women's insufficient access to communication infrastructure, as telehealth was far more elusive in rural areas, particularly for women. It seems that telemedicine in itself is not utilized homogeneously across different parts of a country. Which in itself is a huge challenge for policy makers, especially in the context of telemedicine as an adjunct to in person maternity clinic visits.

Conclusion

The continuity of gynecology and obstetrics clinic is of paramount importance even in times of pandemics and lockdowns. Taking special measures for the segregation of suspected COVID patients and healthy subjects is the key to the smooth delivery of services. Dedicated separate wards/rooms, operation theatres, and labor rooms in this regard may avert the danger of COVID spread among patients and the health care workers during the COVID-19 pandemic.

There are various challenges posed by COVID-19 era to women's health during pregnancy. There is increased risk of psychological problems during pregnancy after childbirth. Other issues faced include domestic violence, economic strains during this pandemic. Special measures should be taken to avoid malnutrition in pregnant women especially in poor countries.

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