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A STUDY ON THE AWARENESS OF COVID-19 INFECTION ON PREGNANT WOMEN IN KASHMIR

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ABSTRACT

Coronavirus disease 2019 (COVID-19), an emerging disease, identified in Wuhan, China, in early December 2019, caused by severe acute respiratory syndrome Corona virus 2 (SARS-CoV-2) resulted in more than 4,099,083 deaths worldwide till 12th November, 2021. There has been a rapid increase in COVID-19 infection cases and deaths worldwide since it was identified in Wuhan, China, in early December 2019. In the literature, limited data about the clinical characteristics of pregnant women with COVID-19 infection have been reported globally. The maternal physiologic and immune function changes during pregnancy of a women, thus, pregnant women may be at a higher risk of being infected with SARS-CoV-2 and developing more complicated clinical events in the current COVID-19 crisis. The main aim of this study was to assess the awareness of pregnant women towards COVID-19 infection, possible symptoms, treatments, and pregnancy outcomes of women infected with COVID-19 during pregnancy in Kashmir. The data collected was analysed and interpreted statistically. In the current study, we chose 100 pregnant women at random to assess the impact of COVID-19 virus on pregnant women in Kashmir. The study revealed that the women under study were in majority aware of the COVID-19 infection but were not aware in general that COVID-19 virus can be transmitted to the fetus during pregnancy or during childbirth. The researchers were of the opinion that pregnant women do not appear to be at a higher risk of catching COVID-19 infection or suffering from more severe disease than other adults of similar age group. Finally, it was suggested that pregnant women should

take at most care, following health advisory and use traditional medicines in case there is some issue in approaching doctors due to COVID-19 restrictions.

Keywords: Kashmir, Herbal Medicine, COVID-19, Attitude, Statistics

INTRODUCTION

The current coronavirus 2019 (COVID-19) pneumonia pandemic, which is caused by SARS-CoV-2 (severe acute respiratory syndrome coronavirus), has become a serious worldwide health issue. COVID-19 has spread over the world, with a significant increase in cases and death rates, since it was first diagnosed in Wuhan, China in December 2019 (Huang *et al.*, 2019; Abuelgasim *et al.*, 2020). One of the most common types of pneumonia is viral pneumonia. Viral pneumonia is one of the most common causes of pregnancy death worldwide (Dashraath *et al.*, 2020).

Enlarged susceptibility to viral infections and worsening of symptoms can be caused by physiological changes during pregnancy, such as decreased functional residual volume, increased diaphragm, and edema of the airway mucosa, as well as changes in cellular immunity (Liu *et al.*, 2020). However, few investigations on the effects of COVID-19 during pregnancy have been conducted to far. Pregnant women may be at higher risk of catching SARS-CoV-2 and having more serious clinical outcomes due to changes in maternal physiology and immune function during pregnancy. The effects of COVID-19 during pregnancy may be influenced by information on Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). Although SARS and MERS have been associated with miscarriages, intrauterine death, fetal growth retardation, and high mortality rates.

It's impossible to say whether pregnant women suffer from a more serious illness. Because the exact number of mildly symptomatic and asymptomatic infected persons has not been fully documented, there is a balance regarding the underlying death rate from COVID-19 in the general population. Ellington *et al.*, (2020) however, reported that pregnant women infected with COVID-19 are more likely to develop serious complications, such as hospitalisation, intensive care, and mechanical ventilation, according to current evidence from a national study of 8,207 pregnant women in the United States, but they are not at higher risk of death than their non-pregnant reproductive-age counterparts. According to WHO (2020), pregnant or newly pregnant women with COVID-19 are more likely than non-pregnant women of childbearing age to be hospitalised to critical care or require breathing help. COVID-19-positive pregnant women were also more likely to deliver birth prematurely. The findings also suggest that one out of every four kids delivered to COVID-19-positive mothers has been admitted to a neonatal

unit, however there is a paucity of information on the causes of premature birth or the indications for neonatal hospitalisation in these babies. Stillbirths and neonatal deaths, on the other hand, were uncommon. The extent to which SARS-CoV-2 is transferred from mother to kid is unknown at this time, whether in gestation, during labour, or early in the postoperative period. WHO is aiming to better understand SARS-CoV-2 vertical transmission and the timing of this transmission.

There is also some evidence that pregnant women are more likely to contract SARS than non-pregnant women (Rasmussen *et al.*, 2020); however, SARS-infected pregnant women appear to have higher morbidity and mortality than non-pregnant women (Schwartz *et al.*, 2020), though this is based on only a few small studies. A mortality rate of 25% was recorded in the biggest series of 12 pregnant women, compared to 14% in non-pregnant people. Pregnant women also stayed in the hospital longer, were three times more likely to be admitted to the intensive care unit, and were three times more likely to be given mechanical breathing (Rasmussen *et al.*, 2020; Zhang *et al.*, 2003; Longman *et al.*, 2007). There was also evidence of foetal harm: four of the seven first-trimester patients miscarried, and four of the five second- and third-trimester pregnancies resulted in premature birth (Rasmussen, *et al.*, 2020). Because ribavirin was given to six out of seven patients during the first trimester, it was assumed that the high risk of miscarriages was related to the ribavirin rather than the SARS infection (WHO 2020). The purpose of this study is to provide information on whether COVID-19 has affected women during pregnancy compared to non-pregnant women.

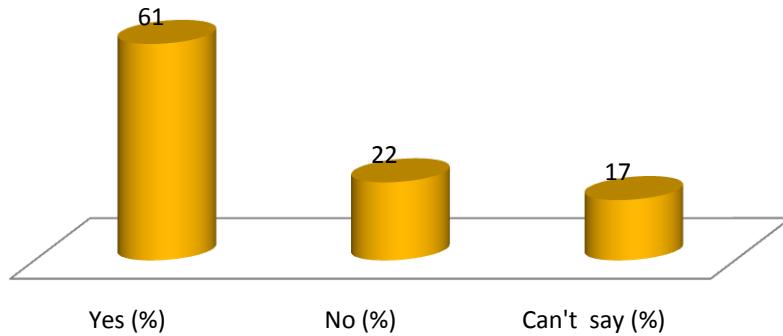
MATERIAL AND METHOD

In the current study conducted in 2020-21, the impact of COVID-19 infection on pregnant women was discussed. Further, 100 pregnant women were chosen at random and data was collected from them related impact of COVID-19 infection on pregnant women in Kashmir using a well designed questionnaire. The data collected was analysed statistically and results were presented in simple graphs.

RESULTS AND DISCUSSION

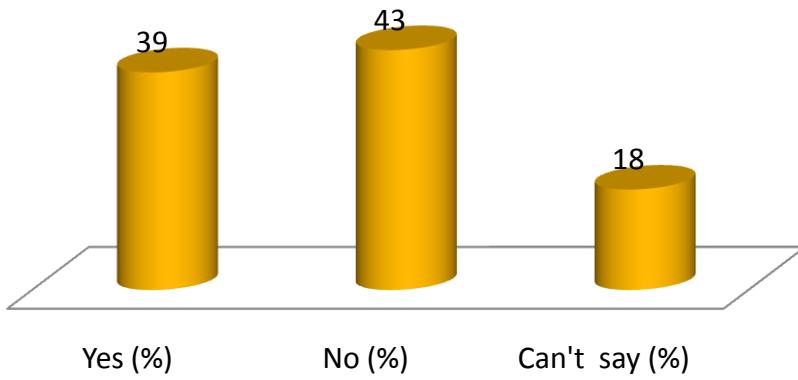
The data shown in Figure 1 revealed that majority (61%) of the respondents were aware of COVID-19 infection and its main symptoms. However, majority of the respondents were not aware how to protect themselves and infant from COVID-19 infection in the current situations.

Figure 1: Are you aware of COVID-19 infection and its symptoms

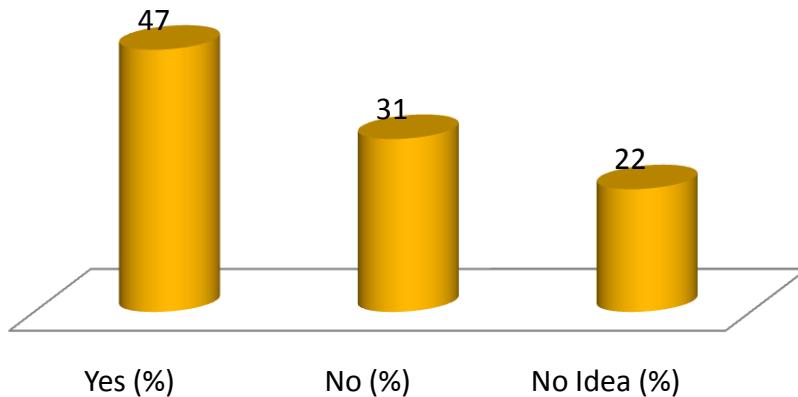


The data presented in Figure 2, showed that that majority (43%) of the respondents were of the opinion that pregnant women COVID-19 infected cannot infect their infants. However, a good percentage of respondents (38%) were afraid that infant can be infected also if mother gets COVID-19 infected.

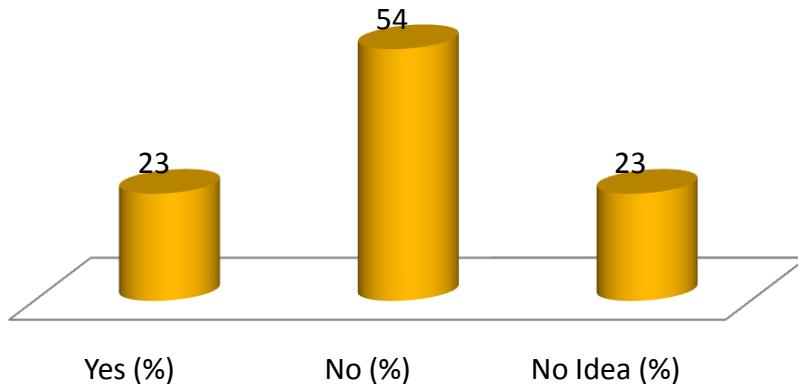
Figure 2: The COVID-19 infected mother can infect the infant also



The data shown in Figure 3 revealed that majority (47%) of the respondents were of the opinion that there was an impact of COVID-19 lockdown on the health status of pregnant women and infants.

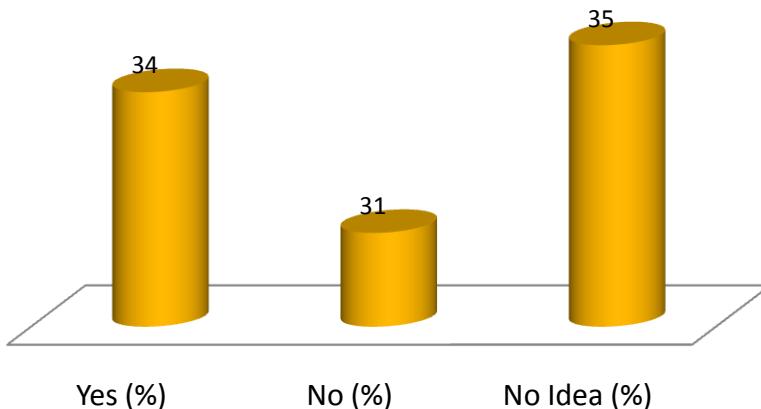
Figure 3: The COVID-19 Lockdown impacted health status of pregnant women and infant

The data shown in Figure 3 revealed that majority (54%) of the respondents reported that during COVID-19 lockdown medical facilities were not available and they faced many problems.

Figure 4: The medical facilities was available whenever needed

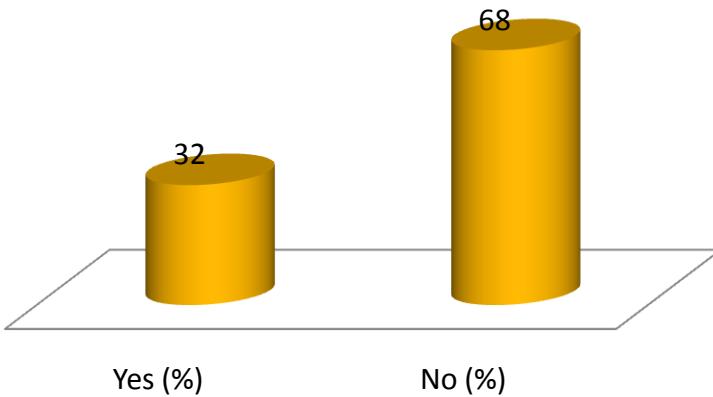
The data presented in Table 5 revealed that majority (35%) of the respondents reported that they have no idea about the benefit of vaccine against COVID-19 spread, followed by 34% respondents who believed it is helpful in preventing and 31% respondents believed vaccination is not useful for preventing COVID-19 infection as it may have ill health effects.

Figure 5: Vaccinine is useful for preventing the spread of COVID-19 infection



The data shown in Figure 6 revealed that majority (68%) of the respondents were not vaccinated. They believe vaccine may have adverse effect on the health of the infant. It is important to mention here that WHO recommends the use of the COVID-19 vaccine Sinovac-CoronaVac in lactating women as in other adults worldwide and does not recommend discontinuing breastfeeding after vaccination.

Figure 6: The Status of Respondents regarding Vaccination



DISCUSSION

There are limited data on the impact of COVID-19 and their babies. In the present research, a questionnaire made to pregnant women shows a high degree of knowledge about the symptoms of covid-19. About 61% of

womans are aware of covid -19 infection and its symptoms. Womens are aware that when one touches infected persons or infected surfaces that his noise, mouth or eye can transfer the infection.

Very recent evidences has proposed that it is probable that the virus can be vertically transmitted but needs a large no, of cases to determine(Dong *et al.*, 2020; Zeng *et al.*, 2020). A recent meta-analysis made by Ziyi Yang (2019) concluded that there were neonatal infection, but there was no direct proof of intrauterine vertical transmission was reported. There is slight proof to claim vertical transmission; but, a woman that is infected with the virus might transmit the virus by a close contact to the neonate. CDC and WHO differ in their recommendations (WHO. 2020; Department of health and human services, 2020). Present study reported that the awareness of womans about infecting the infants is 39%. However 43% were of opinion that pregnant woman COVID-19 infected cannot infect their infants.

Till now, antiviral drug is considered for management of this infection, some medications as Chloroquine and hydroxychloroquine was used in China and South Korea, documented with promising results (Zambrano *et al.*, 2020). Vaccine like covaccine, covisheild, Pfizer and many more has been developed. Azithromycin was used in addition to hydroxychloroquine in some protocols¹².Vaccination is a critical in controlling covid 19 pandemic. The perception and acceptance of vaccine among pregnant womans is unknown. Information about the knowledge of vaccine among the pregnant womans and the status of womans being vaccinated was obtained in the study. The present study revealed that the 35% of the respondents have no idea about the benefit of vaccine against Covid 19 spread, followed by 34% respondents who believed that the vaccination is not useful for preventing Covid 19 infection as it may have ill health effects. From this survey, we found medium (34%) vaccine acceptance, varying level of understanding efficacy and also a medium proportion (33%) of safety concerns regarding the possible side effects on the unborn child.

Reported rates of COVID-19 vaccine acceptance in pregnant women vary worldwide, from 77% in a study conducted in China to 37% in a study conducted in Turkey (Tao *et al.*, 2021; Goncu *et al.*, 2021). Vaccine acceptance in the study appears to be low at 32 %, suggesting the need for an action plan to improve acceptance to achieve adequate vaccination rates in this population.

Majority (47%) of the respondents were of the opinion that there was an impact of COVID-19 lockdown on the health status of pregnant women and infants. Most of the womens reported the clinically the symptoms of depression, anxiety symptoms. The result indicated that there was the increased percentage of antenatal care during lock down period, despite of the fact that the some of these womens were suffering from seriously underlying

medical conditions or serious pregnancy complication that require close antenatal surveillance. Majority (54%) of the respondents reported that during COVID-19 lockdown medical facilities were not available and they faced many problems. Similar finding have been reported by Muhaidat *et al.* (2020)

CONCLUSION

There are limited data on the impact of COVID-19 infection on pregnant women and their babies. The current study revealed that although knowledge on COVID-19 among pregnant women was good but they were not taking adequate preventive measures as per health advisory and WHO guidelines. It was concluded that there is a need to institute measures to improve COVID-19 preventive practices among pregnant women in Kashmir valley. In rural areas of Kashmir, where access to electronic media is poor and limited, one of the ways of achieving this is by extending the media campaign. Further, efforts should be made to improve water, sanitation, and hygiene systems in communities as well as the free supply of facemask, COVID-19 vaccine to the underprivileged women.

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Conflict of interest: *None declared*

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