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THE EFFECT OF COVID 19 INFECTION ON PREGNANCY AND FOETAL OUTCOME

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ABSTRACT

Background: There is no doubt that corona virus brings so much devastation worldwide. Like other countries, in Bangladesh covid-19 effect was worse and which affected vulnerable people like pregnant women and their newborns. **Objective:** In this study our main goal is to evaluate the effect of covid-19 infection in pregnant women and fetus outcome. **Method:** This cross-sectional study was done at tertiary hospital Dhaka, from June 2020 to June 2021. All covid positive obstetric patients admitted to the hospital were sampled consecutively. There were 100 patients in all. The patients received both covid and obstetric care at the same time. The maternal and fetal outcomes were recorded. **Results:** During the study, 72.58% of the patients belonged to the age groups of <30 years and 69.35% cases were multipara. On admission fever seen in 20% cases followed by mild respiratory distress seen in 7%, moderate respiratory distress 8% cases, severe respiratory distress 11% cases, only cough seen in 30% cases of pregnant women. 21% cases ICU was needed after postdelivery, followed by 80% delivery were cesarean section where wound infection seen in 21% and maternal mortality seen in 15% cases. IUD cases seen in 21% cases and neonatal mortality seen in 22% cases. **Conclusion:** According to our findings, the maternal outcome was poor due to covid infection. Prematurity with significant perinatal mortality is also a major problem. As a result, for infected moms, early medical attention and the availability of an ICU in severe condition are required for a successful pregnancy outcome.

KEYWORDS: covid-19, Pregnancy, Fetus outcome.

INTRODUCTION

Coronavirus illness 2019 is an emerging disease with a significant increase in cases and mortality after its discovery in December 2019 in Wuhan, China. This pandemic in Bangladesh is part of a worldwide pandemic caused by the coronavirus that causes severe acute respiratory syndrome (SARS-CoV-2). At the moment, developing country like Bangladesh sufferings and fatality cases were growing. In addition, a large number of pregnant women are also afflicted, in addition to the rest of the population.[1-3]

In the midst of this rapidly evolving outbreak that have significant effects on our public health and medical infrastructure, the unique needs of pregnant women should be included in preparedness and response plans. Though in this outbreak, more men have been affected than women, it is critical that pregnant women should not be denied potentially life-saving interventions in the context of a serious infectious disease threat.[4-5]

In this study our main goal is to evaluate the effect of covid-19 infection in pregnant women and fetus outcome.

Objective

To evaluate the effect of covid-19 infection in pregnant women and fetus outcome.

METHODOLOGY

This cross-sectional study was done at tertiary hospital Dhaka, from June 2020 to June 2021. All covid positive obstetric patients admitted to the hospital were sampled consecutively. There were 100 patients in all.

The patients received both covid and obstetric care at the same time. The maternal and fetal outcomes were recorded.

RESULTS
In table-1 shows age distribution of the study where 72.58% of the patients belonged to the age groups of <30 years. The following table is given below in detail:

Table 1: Age distribution of ectopic pregnancy (n-80).

Age in years	Percentage
<30 years	72.58%
>30 years	27.42%

In figure-1 shows distribution of the patients according to residential area where majority were coming from urban. The following figure is given below in detail:
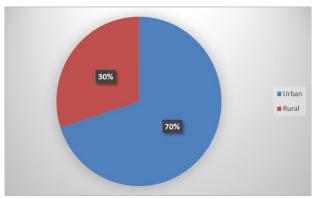

Figure 1: Distribution of the patients according to residential area.

In table-2 shows demographic status of the patients where majority were literate, 75% and 70% were housewife. The following table is given below in detail:

Table 2: Demographic status of the patients.

Educational status	Percentage (%)
Literate	65%
Illiterate	35%
Occupational status	
Housewife	70%
Service holder	20%
Student	10%
Monthly family income (monthly)	
<10000 Tk	20%
10001-20000 Tk	55%
>20000 Tk	25%

In table-3 shows parity distribution of the study group where the peak incidence was among the multiparous (69.35%). The following table is given below in detail:

Table 3: Parity in patients with ectopic pregnancy. (n-62).

Parity	Percentage (%)
Primi	30.65%
Multipara	69.35%

In table-4 shows clinical status of the patients where 35.48% cases had HTN followed by 19.35% had history of infertility, 80.65% cases visited ANC ≤4 times. The following table is given below in detail:

Table 4: Clinical status of the patients.

Pregnancy comorbidity	Percentage (%)
HTN	35.48
Others	64.52
Number of ANC	**%**

≤4 times	80.65
>4 times	19.35

In table-5 shows condition of patients on admission fever seen in 20% cases followed by mild respiratory distress seen in 7%, moderate respiratory distress 8% cases, severe respiratory distress 11% cases, only cough seen in 30% cases. The following table is given below in detail:

Table 5: Condition of patients on admission.

Conditions of patients	Percentage (%)
Fever around100oF	20%
H/O fever	55%
Without H/O fever	23%
Mild respiratory distress	7%
Moderate respiratory distress	8%
Severe respiratory diseases	11%
Without respiratory distress	70%
Only cough	30%

- **Multiple responses were noted.**

In table-6 shows ICU status and maternal outcome where 21% cases ICU was needed after postdelivery, followed by 80% delivery were cesarean section where wound infection seen in 21% and maternal mortality seen in 15% cases. The following table is given below in detail:

Table 6: ICU Status and Maternal outcome.

Need of ICU	Percentage (%)
Predelivery	11%
Postdelivery	21%
ICU with ventilation	8%
ICU without ventilation	20%
Mode of delivery	**%**
VD	20%
CS	80%
Wound infection, CS	21%
Maternal mortality	**%**
VD	6%
CS	`15%

In figure-2 shows fetal outcome where IUD cases seen in 21% cases and neonatal mortality seen in 22% cases. The following figure is given below in detail:
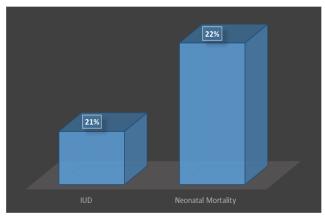

Figure 2: Fetal outcome.

DISCUSSION
In a study done in a NewYork hospital, it is seen among 33 Corona affected pregnant women only 4 women showed symptoms (12%), but others were asymptomatic.[7] In our study fever seen in 20% cases followed by mild respiratory distress seen in 7%, moderate respiratory distress 8% cases, severe

respiratory distress 11% cases, only cough seen in 30% cases.

It may be that pregnant women are at no greater risk than the general population when it comes to catching the virus. But a good proportion have become very sick and died.

In a study published preprint in the non-peer reviewed journal medRxiv in April 2020, which is a systemic review covering 23 studies from various countries mostly from China, finds that most of the pregnancies (almost 9/10) ended in delivery by Caesarean section and Preterm delivery occurred in 23%. Many women had other medical conditions as well, such as: Diabetes and hypertensive disorders of pregnancy (11% and 9% respectively).[8] Which was supported by our study.

In our study, the majority of hospitalized women were aged less than 30 years and majority were multigravida.

In another systemic review of Nineteen studies of China, Canada, USA having 41 hospitalized covid positive pregnant women show that the most common adverse pregnancy outcome was preterm birth <37 weeks, occurring in 41.1% of cases, while the pooled proportion of perinatal death was 7.0%. None of the 41 newborns assessed showed clinical signs of vertical transmission.[9]

In another study, researchers at Montefiore Health System and Albert Einstein College of Medicine in collaboration with four major New York City academic health centers, published the largest review to date of birth outcomes among women affected with covid 19, the novel coronavirus.[10] Published in 'Obstetrics & Gynecology' on June 16, 2020, this unprecedented data reviewed 241 births to women with laboratory-confirmed SARS-CoV2 who delivered between March 13 and April 12, 2020. Among the most compelling findings, when admitted to the hospital 61.4% of the 241 women included in this study were asymptomatic.

In our study, 21% cases ICU was needed after postdelivery, followed by 80% delivery were cesarean section where wound infection seen in 21% and maternal mortality seen in 15% cases. In addition, IUD cases seen in 21% cases and neonatal mortality seen in 22% cases, which similar to other study.[11]

CONCLUSION
According to our findings, the maternal outcome was poor due to covid infection. Prematurity with significant perinatal mortality is also a major problem. As a result, for infected moms, early medical attention and the availability of an ICU in severe condition are required for a successful pregnancy outcome.

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