



The Impact of Pregnancy with Covid-19 on Ashpyxia in Newborn Infant: A Literature Review

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Abstract. Background: Pregnant and giving birth women represent the population that is vulnerable to outbreaks of this infectious disease because of changes in physiology, susceptibility to infection, and impaired mechanical and immunological function. In neonatal outcomes, it was found that babies born to mothers infected with SARS-CoV-2 have an increased risk of fetal distress, premature babies, and low Apgar scores.

Aim: In light of this, the author conducted a study on the impact of pregnancy in accordance with Covid-19 in relation to the incidence of asphyxia in the newborn, with the goal of assisting the patient in obtaining treatment and serving as a preventative measure for obtaining the event. As a result of this pandemonium, the baby has developed asphyxia.

Methods: The method used in this study is a Literature Review study that uses Covid-19 to measure accuracy on the previous day's data from the baby. The database used in the source search is Google Scholar.

Results: This article was written with the intention of discussing a topic related to the assassination of black people in the Covid-19 pandemic. Due to the fact that you are a part of the special immune suppression condition, pregnant's risk is high in relation to the 2019-nCoV epidemic. Physiological changes that occur during pregnancy make the mother more susceptible to severe infections.

Conclusion: The impact of a mother who is exposed to Covid-19 can cause asphyxia in newborns. That Covid-19 infection in the mother can result in hypoxemia which can result in babies born with asphyxia and premature.

Keywords: pregnancy · covid-19 · newborn asphyxia

1 Introduction

Pregnant women confirmed Covid-19 in 2021 as many as 1.6%, stillbirths 1.4%, neonatal deaths 1.0%, prematurity 33.7%. Pregnant women, childbirth, postpartum and newborn groups are vulnerable targets for Covid-19 infection and are at risk of increasing maternal and newborn morbidity and mortality [1].

Pregnant and giving birth women represent the population that is vulnerable to outbreaks of this infectious disease because of changes in physiology, susceptibility to

infection, and impaired mechanical and immunological function. In order to alleviate the fetus's symptoms and improve their health, treatment should be given. Pregnant women infected with COVID-19 are harmful to both the individual and the community. If there is a clinical manifestation that is based on the respiratory tract, and if there is a transmission, ARDS can be detected in the baby [2].

Pregnant women who have been confirmed to have the Covid-19 virus have the same symptoms as a dead bird. The initial symptoms that arise in the mother are the same as when the mother is not pregnant, such as hot breathing, fever, coughing, sneezing, stuffy nose, sore throat, and even diarrhea [3].

This study (Li et al., 2020) When the ASI was formed, it was known as the amniotic fluid, the umbilical cord, and ASI as a whole. After the process was completed, the result was negative for Covid-19. However, on the 26th of March in 2020, JAMA will publish two reports on the five people currently infected with SARS-CoV-2 IgM, despite the fact that the number of people infected with this virus is negligible. In a separate study, Kimberlin & Stagno demonstrated that susceptible IgM was correlated with both positive and negative plasma levels, as well as cross-over and activation tests [4].

From a neonatal perspective, it can be seen that newborns infected with SARS-CoV-2 have a higher risk of developing fetuses, prematurity, and Apgar scores [5]. In light of this, the author conducted a study on the impact of pregnancy in accordance with Covid-19 in relation to the incidence of asphyxia in the newborn, with the goal of assisting the patient in obtaining treatment and serving as a preventative measure for obtaining the event. As a result of this pandemonium, the baby has developed asphyxia.

2 Method

The method used in this study is a Literature Review study that uses Covid-19 to measure accuracy on the previous day's data from the baby. The review process begins with identifying journal articles that are relevant to the topic at hand. The premise information used in the source search is Google Researcher. The topic of this article is the topic of assassination on the New Baby during the Covid-19 Pandemonium. Asphyxia in newborns as part of the covid-19 pandemic, asphyxia in newborns as part of pregnancy as part of covid-19 are examples of the key search.

3 Results and Discussion

Using an electronic database, a review of literature identified fifty articles with potential for discussion. Articles that were not subjected to Covid-19's impact for the purpose of establishing asphyxia on the Newborn were divided into 50 articles. 50 articles were selected according to the title according to the research theme and abstract, namely the incidence of asphyxia in pregnancy and childbirth. This identification resulted in 5 articles. Each of the five articles included in this article consists of a piece of writing that is consistent with the writing style. The item identification process is illustrated in Fig. 1.

A summary of the articles reviewed in the study can be seen in Table 1.

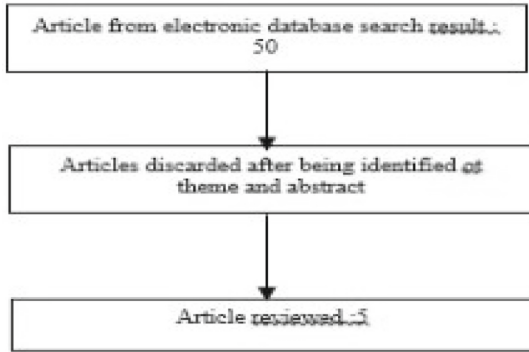


Fig. 1. Article identification process

Table 1. Article Summary

Writer	Country	Research Title	Research methods	Results
Fitraendi et al., 2022	Indonesia	Relationship of Maternal and Perinatal Outcomes to Severity Levels Covid-19 infection	Retrospective observational analytics	Mothers with COVID-19 infection had a mild of 132 babies (89.3 percent), a mild of 43 babies (32.6%), and a mild of 5 babies (3.8%). Perinatal infections were the most common. There was a significant difference between the absence of asphyxia in January and the absence of COVID-19 infection (p-value 0.013).
Rumfabe et al., 2020	Indonesia	According to the literature, the risk of contracting the Coronavirus 2019 (Covid-19) during the month of December 2019 through August 2020	Literature review with a systematic review type	Impact (COVID-19) occurred in neonatal asphyxia (17%).

(continued)

Table 1. (continued)

Writer	Country	Research Title	Research methods	Results
Zhu et al., 2020	China	Analysis of the 10 most recent clinical trials that were conducted by Mrs. For pneumonia 2019-nCoV	Clinical features and results were analyzed retrospectively.	Intrauterine emergency was present for six weeks (one week). The 2019-nCoV infection can cause hypokinesemia, which increases the risk of perinatal infections such as asphyxiation at beginning and preterm delivery.
Ethics et al., 2021	Indonesia	Clinical Features and Characteristics of the Neonate of Confirmed Mothers Covid-2019 at Dr. Soetomo	Retrospective	Of all babies born to pregnant women with COVID-19 infection, 3 (2.7%) died due to respiratory failure, 7 (6.4%) had received treatment in the NICU due to asphyxia, prematurity, or respiratory problems, and the other 100 (90.9%) were in stable condition.
Daswati & Nisa, 2020	Indonesia	Outcomes of confirmed Covid-19 deliveries at the Laburan Baji Hospital Macassar	Descriptive research.	Of the 88 neonates from mothers with confirmed Covid-19 or Patients Under Monitoring (PDP), there was 1 baby weighing > 4000 g (1.14%), 72 babies weighing 2500–4000 g (81.82%), There were 15 (17.04%) babies weighing < 2500 gr and none weighing < 1000 gr.

The number of people in the United States is expected to fall in 2019 due to the nCoV, and the probability of an outbreak is still high due to the fact that the individual is immune [6]. Physiological changes that occur during pregnancy make the mother more susceptible to severe infections. Anatomy, including transverse diameter of the chest and diameter of the diaphragm, tolerance for maternal based on hypoxia, lung volumes, and vasodilation, can cause edema of the mucosa and secretions in the upper respiratory tract [7, 8].

In addition, the immune system produces vulnerability in response to an intracellular infection, such as a virus. In accordance with the fetus and infant at the time, the innate and adaptive immune system made the infant vulnerable in relation to infection [8, 9]. A number of factors, including cytokines and the complement cascade, can have a significant impact on neonatal growth and development [10]. Therefore, the knowledge of infectious agents that can infect the fetus or newborn through vertical transmission is now of particular concern [11]. Pregnant women and newborns should be evaluated as a potential risk group in the current COVID-19 pandemic [8].

That Covid-19 infection in the mother can result in hypoxemia which can result in babies born with asphyxia and premature. The babies who died were due to the baby's poor awareness and general condition, poor immune function, and rapid disease development such as rapid viral replication which causes failure in many organs of the body, shock in infants and DIC (Disseminated intravascular coagulation) which is not can be treated with blood transfusions. In addition, these babies have low birth weight and gestational age of less than 37 weeks [12].

According to Leniensi (2021), intrauterine fetal distress accounts for 6 out of every 1,000 births. The 2019-nCoV infection can cause hypokinesemia, which increases the risk of perinatal infections including asphyxiation at beginning and preterm start. The first symptoms of neonates in the study (Leniensi, 2021) after admission have been respiratory distress (n = 6), followed by gastrointestinal symptoms (n = 4), fever (n = 2), increased heart rate (n = 1), and vomiting (n = 1). For this reason, respiratory rate, body temperature, heart rate, and gastrointestinal signs and symptoms and signs and symptoms have to be intently monitored, and early intervention should be provided to patients with unusual findings [6].

Flow of Neonatal Birth Management: Neonatal births to mothers related to COVID-19 must be carried out in a special isolation room for COVID-19. During the golden hour period for pregnant women ODP, PDP, as well as probable and confirmed COVID-19, resuscitation, stabilization and transport activities are carried out according to clinical procedure guidelines in the special isolation room for COVID-19, where the resuscitation team must use protection level III PPE. In the healthy condition of the baby, observation and treatment will continue in the special isolation transition room for COVID-19. As a result of the condition known as neonatal asphyxia, neonatal care was conducted at the Neonatal Intensive Care Unit (UPIN) in conjunction with the COVID-19 isolation and the COVID-19 team based on clinical procedure guidelines for each hospital, with neonatal capacity based on competence [13].

4 Conclusion

In the event of the 2019-nCoV epidemic, the likelihood of pregnant being infected is high due to the fact that she is already infected with the special suppression of immunity. Physiological changes that occur during pregnancy make the mother more susceptible to severe infections. The impact of a mother who is exposed to Covid-19 can cause asphyxia in newborns. That Covid-19 infection in the mother can result in hypoxemia which can result in babies born with asphyxia and premature.

Authors' Contributions. All authors contributed to identification articles, review articles, research writing, editing, and review of submissions.

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