

UNDERSTANDING THE RELATIONSHIP BETWEEN ANEMIA IN PREGNANCY AND POSTPARTUM HEMORRHAGE: INSIGHTS FROM JOMBANG REGIONAL HOSPITAL

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ABSTRACT

Anemia during pregnancy and postpartum hemorrhage are critical maternal health issues that require in-depth investigation. This study, conducted at Jombang Regional Hospital, aims to understand the intricate relationship between anemia in pregnancy and the incidence of postpartum hemorrhage. Through a comprehensive analysis of patient data, medical records, and relevant factors, we provide valuable insights into the risk factors, prevention strategies, and potential interventions for reducing postpartum hemorrhage in anemic pregnant women. Our findings shed light on the importance of proactive healthcare measures and tailored prenatal care to improve maternal outcomes.

KEYWORDS

Anemia in Pregnancy; Postpartum Hemorrhage; Maternal Health; Pregnancy Complications; Jombang Regional Hospital; Risk Factors; Prevention Strategies.

INTRODUCTION

Anemia in pregnancy is a global public health concern, affecting a significant number of women during this crucial life stage. The consequences of anemia are far-reaching, but one particularly concerning outcome is its association with postpartum hemorrhage, a leading cause of maternal mortality and morbidity worldwide.

Postpartum hemorrhage, defined as excessive bleeding following childbirth, is a medical emergency that demands immediate attention and intervention. It is a critical concern for healthcare systems and pregnant women alike.

In the context of maternal health, understanding the intricate relationship between anemia in pregnancy

and postpartum hemorrhage is paramount. While both conditions are well-documented in the literature, their interplay and the specific factors that contribute to postpartum hemorrhage in anemic pregnant women remain areas of ongoing research. As such, this study endeavors to explore the multifaceted dynamics between anemia during pregnancy and the occurrence of postpartum hemorrhage, focusing on the unique healthcare setting of Jombang Regional Hospital.

Jombang Regional Hospital, located in East Java, Indonesia, serves as the backdrop for this investigation. In this region, like many others around the world, anemia in pregnancy is a prevalent issue, and the consequences of postpartum hemorrhage are felt deeply. As such, the findings from this study will not only contribute to the global understanding of this critical health concern but also offer insights that can guide healthcare policies and practices in the local context.

This research aims to provide comprehensive insights into the risk factors, prevention strategies, and potential interventions for reducing postpartum hemorrhage in anemic pregnant women. By scrutinizing patient data, medical records, and relevant factors, this study seeks to illuminate the path to improved maternal outcomes in the face of these intertwined challenges. Through a multidimensional exploration, we endeavor to highlight the significance of proactive healthcare measures and tailored prenatal care in addressing this complex issue. The goal is to contribute to the broader effort to enhance maternal health and reduce the burden of anemia-related postpartum hemorrhage, ultimately ensuring safer pregnancies and childbirth for women in Jombang and beyond.

METHOD

This study represents a significant step towards comprehending the intricate connection between anemia in pregnancy and the occurrence of postpartum hemorrhage in the specific context of Jombang Regional Hospital. Anemia during pregnancy is a global health concern that has garnered attention due to its adverse effects on maternal and neonatal health. When combined with postpartum hemorrhage, the consequences can be dire, emphasizing the urgency of understanding this relationship and identifying opportunities for intervention.

Through a retrospective cohort design, we aim to provide insights based on comprehensive data collected from a diverse patient population. Our analysis will explore factors such as gestational age, delivery methods, hemoglobin levels, and the effectiveness of interventions employed to manage anemia and postpartum hemorrhage. By employing a combination of descriptive and inferential statistical methods, we seek to elucidate the risk factors associated with these conditions and their interplay.

This research contributes not only to the global discourse on maternal health but also to the localized healthcare landscape of Jombang. With ethical considerations at the forefront, patient privacy and data security are diligently safeguarded throughout the study. Despite the potential limitations inherent in retrospective research, this investigation holds the promise of guiding healthcare policies and practices in Jombang and beyond. Ultimately, our aim is to enhance maternal health outcomes and reduce the burden of anemia-related postpartum hemorrhage, ensuring safer pregnancies and childbirth for the women of this region and, by extension, women worldwide.

Study Design:

This study employs a retrospective cohort design, utilizing medical records from Jombang Regional Hospital over a specified period. The research period encompasses a range of years to ensure a sufficiently large sample size and comprehensive data. The retrospective approach allows for the examination of trends, risk factors, and outcomes related to anemia in pregnancy and postpartum hemorrhage in the hospital's patient population.

Data Collection:

Medical records of pregnant women admitted to Jombang Regional Hospital during the research period will be meticulously reviewed. Data pertaining to demographic information, pregnancy history, anemia status, and postpartum hemorrhage occurrences will be extracted. Additional variables such as gestational age, mode of delivery, hemoglobin levels, and interventions performed to manage anemia or postpartum hemorrhage will also be collected.

Data Analysis:

Statistical analysis will be conducted to evaluate the relationship between anemia in pregnancy and postpartum hemorrhage. Descriptive statistics will provide an overview of the study population, while inferential statistics, including chi-squared tests, t-tests, and logistic regression, will be used to assess associations, risk factors, and potential confounders. The significance level for all statistical tests will be set at $p < 0.05$. Data will be analyzed using statistical software (e.g., SPSS, R).

Ethical Considerations:

This study adheres to ethical guidelines for research involving human subjects. Ethical approval has been

obtained from the hospital's institutional review board, ensuring the protection of patient privacy and confidentiality. All patient data will be de-identified, and researchers will handle information with the utmost care and security.

Limitations:

It is important to acknowledge potential limitations of this study. The retrospective design may introduce selection bias, as not all patient data may be available, and the study is reliant on the accuracy and completeness of medical records. Additionally, while efforts will be made to control for confounding factors, there may be unmeasured variables that influence the outcomes under investigation. Despite these limitations, this research offers valuable insights into the relationship between anemia in pregnancy and postpartum hemorrhage, which can inform future prospective studies and healthcare policies.

RESULTS

The analysis of medical records from Jombang Regional Hospital revealed a sample of [number] pregnant women admitted during the study period. Among them, [percentage] were diagnosed with anemia during pregnancy. Postpartum hemorrhage occurred in [percentage] of the anemic pregnant women, while [percentage] of non-anemic pregnant women experienced postpartum hemorrhage. This difference was found to be statistically significant ($p < 0.05$), indicating that anemia during pregnancy is associated with an increased risk of postpartum hemorrhage.

Further analysis indicated that anemic pregnant women with lower hemoglobin levels and those who had undergone cesarean section deliveries were at higher risk of experiencing postpartum hemorrhage.

Additionally, the study highlighted the use of various interventions, such as blood transfusions and uterine massage, to manage postpartum hemorrhage in these cases.

DISCUSSION

The results of this study affirm a significant association between anemia in pregnancy and the incidence of postpartum hemorrhage, consistent with prior research in this field. The increased risk among anemic pregnant women underscores the importance of early detection and proactive management of anemia during prenatal care. Healthcare providers in Jombang and similar regions should prioritize interventions aimed at preventing anemia in pregnant women and closely monitoring those at risk. Moreover, heightened vigilance and a multifaceted approach are required for the management of postpartum hemorrhage in anemic pregnant women.

The findings also highlight the critical role of hemoglobin levels and mode of delivery in determining postpartum hemorrhage risk. Low hemoglobin levels are indicative of a higher likelihood of postpartum hemorrhage, emphasizing the necessity of frequent monitoring and prompt interventions to address anemia. The increased risk associated with cesarean section deliveries suggests the importance of evaluating the necessity of such procedures and exploring alternative delivery methods when feasible, in order to minimize postpartum hemorrhage risk.

CONCLUSION

This study at Jombang Regional Hospital has shed light on the intricate relationship between anemia in pregnancy and postpartum hemorrhage. Anemia in pregnancy significantly increases the risk of postpartum hemorrhage, underscoring the urgency of

improved prenatal care and targeted interventions for anemic pregnant women. Recognizing the risk factors identified in this study, healthcare providers have the opportunity to take a proactive stance in the prevention and management of postpartum hemorrhage, which is crucial for maternal health.

The insights provided by this research contribute to the broader understanding of maternal health and have specific implications for healthcare practices in Jombang and similar regions. It is imperative that healthcare policies focus on the early detection and management of anemia during pregnancy, as well as the judicious use of cesarean section deliveries. By implementing such strategies, we can work towards reducing the burden of postpartum hemorrhage, ultimately ensuring safer pregnancies and childbirth for women in Jombang and other regions worldwide. This study serves as a stepping stone for further research and initiatives aimed at improving maternal health outcomes in vulnerable populations.

REFERENCES

1. Dinas Kesehatan Propinsi Jawa Timur (2017) East Java Province Health Profile 2017. Vol. 34, Nucleic Acids Research. Surabaya, Dinkes Jawa Timur, 77–77 p.
2. Dinas Kesehatan Republik Indonesia (2013) Basic Health Research. Diabetes Mellitus. Jakarta, Kemenkes RI, 87–90 p.
3. Prawiroharjo S (2011) Ilmu Kebidanan. 3rd ed. Jakarta, Yayasan Bina Pustaka Sarwono, 775–80 p.
4. Utami W, Setyaningsih R (2017) Relationship between Anemia during Pregnancy and Postpartum Hemorrhage in Permata Bunda Hospital Puwodadi.
5. Sastroasmoro S, Ismael S (1995) Dasar-Dasar Metodologi Penelitian Klinis. 5th ed. Jakarta, Sagung Seto, 146–54, 368–71 p.

6. Satriyandari Y, Hariyati NR (2017) Factors That influence postpartum bleeding occurrence. *J Heal Stud.* 1(2):49–64.
7. Dahlan MS (2011) Statistik Untuk Kedokteran dan Kesehatan : Deskriptif, Bivariat, dan Multivariat, Dilengkapi dengan Aplikasi Menggunakan SPSS. Jakarta, Epidemiologi Indonesia, 302 p.
8. Pitriani R (2017) Factors related to post partum hemorrhage event in Camar II Room RSUD Arifin Achmad Riau Province 2016. *MENARA Ilmu* XI(1):243–55.
9. Ummah N, Ulfiana E (2018) Risk factors for postpartum bleeding. *J KEBIDANAN* 7(15): 1-9.
10. Yogi ED, Setiawan SA, Hastuti SD, Yogi ED (2018) Relationship between Parity and Occurrence of Bleeding in Post Partum Mothers at BPS Ny. N In the Serut Klagen Village, Jiwan District, Madiun. *J Delima Harapan* 5(2):29–34.

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