

Prevalence of Diabetes, Hypertension, and Hematological Factors in Pregnant Experiencing Abortion and Stillbirth: A Study in Isfahan Province (2016-2023)

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Abstract

Introduction: Most pregnancies lead to healthy childbirth. Sometimes during pregnancy, some accident occur that can lead to the loss of pregnancy. The loss of the fetus before the 20th week of pregnancy is abortion and then called stillbirth. This study aimed to investigate the prevalence of diabetes, hypertension, and hematological Factors in pregnant with abortion and stillbirth who were referred to health centers in Isfahan province from 2016 to 2023.

Methods and Materials: This descriptive study was conducted on 28656 cases of abortion and stillbirths among pregnant referred to health centers in Isfahan province from 2016 to 2023. Following the collection of data, the analysis was performed using SPSS software, version 23.

Results: Out of 28656 cases, it was determined that 97.4% were classified as abortions, while 45% were identified as stillbirths. 28.2% of individuals were diagnosed with diabetes, and 0.3% presented with hypertension. Notably, 21.2% were found to have hyperthyroidism, and 40.4% of mothers possessed an Rh-positive status. Regarding blood type distribution, the findings indicated that 17.1% have type O blood, 13.7% have type A, 10.5% have type B, and 3.2% have type AB. Additionally, 32.3% had low hemoglobin (less than 12).

Conclusion and discussion: The analysis of the 28,656 cases reveals striking patterns in maternal and fetal health outcomes that warrant critical attention. The predominance of abortions, with a staggering 97.4% classification rate, alongside the 45% stillbirth rate, underscores a pressing public health concern that necessitates further investigation into underlying risk factors and effective interventions. The high prevalence of diabetes (28.2%) among the studied population suggests a significant correlation with adverse pregnancy outcomes, highlighting the need for targeted screening and management strategies to mitigate risks for both mothers and infants. Moreover, the notable incidence of hyperthyroidism (21.2%) in conjunction with Rh-positive status (40.4%) signifies the complexity of maternal health dynamics that may influence pregnancy trajectories. The diverse blood type distribution, particularly the 17.1% prevalence of type O blood, adds another layer of consideration for healthcare providers in managing prenatal care. Furthermore, the critical finding of low hemoglobin levels in 32.3% of the cases raises alarms regarding nutritional and hematological health in this population, necessitating comprehensive screening for anemia as part of standard prenatal care protocols. Overall, these findings underscore the importance of integrated healthcare approaches that consider the multifaceted dimensions of maternal health, with a strong emphasis on prevention and early intervention. Future research should aim to explore the causal relationships between these variables to inform clinical practices, enhance maternal-fetal health outcomes, and ultimately reduce the rates of abortion and stillbirth.

Keywords: Prevalence, Abortion, Stillbirth, Diabetes, Hypertension, Hematological Factors, Isfahan.



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