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Research Article

MODERN VIEWS TO THE PROBLEMS OF ANEMIA IN PREGNANCY

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ABSTRACT

The paper explores how hemoglobin measured from cord blood at birth is related to anemia during pregnancy among women living in a hypertension zone in Gabon. The type of anemia was to be tested as a risk factor for adverse outcomes in pregnancy. High and low hemoglobin anemia were defined and compared with normal hemoglobin at delivery and with pregnancy without anemia. Anemia in pregnancy is a life-threatening state with increased risks of adverse outcomes to mother and infant. Although this could be detected by caesarean section, women with anemia were likely to have complex labor and the doubling of hemorrhage after pre-labor rupture of membrane suggests a causal relation. Tiredness increased throughout pregnancy for anemic women, but four obstetric outcomes were not worse than non-anemic women. Fetal growth was physiology at delivery was poor but expressed breast milk after a complicated peripartum did not show difference in content or volume. Anemia would appear to worsen outcome of already complicated pregnancies, including development of pre-eclampsia and a doubling of the need for hospitalization. A recent systematic review has shown clear benefits to correcting anemia on reducing decreased birth weight preterm infant mortality, but pregnant are a difficult group to treat. This supplement will also show the effectiveness of using various interventions to prevent and treat anemia and improving women's overall knowledge of anemia for better self-care.

KEYWORDS

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Hemoglobin, pregnancy, infant, Uzbekistan, China, US, UK.

INTRODUCTION

Even though anemia, defined as a Hb of less than 11 grams per decilitre, affects 25% of the world's population, it remains an under-recognized and underestimated problem in the world today. Recent data on the global prevalence of anemia in pregnant women demonstrate that 56 million women are affected annually or 18% of all pregnancies. These cases can be divided into two categories. First, there are the women who are already anemic when they become pregnant. The high prevalence of anemia in the developing countries greatly increases the risk of a woman being anemic when she becomes pregnant. McNamara et al. calculated that in China 2004, the odds ratio for an anemic woman achieving a normal pregnancy was 0.41 (95% CI 0.34-0.50). Consequently, her maternal health and reproductive outcomes are compromised. Then, in instances where the pregnancy is unplanned or the anemic woman is not aware she is pregnant, the damage to the fetus occurs in the first 8 weeks when the maternal erythrocytes do not meet the greatly increased demand for iron. Analysis of data from 101 healthy pregnant women in the UK showed that haemoglobin concentrations peaked at 32 weeks gestation with no change in the period prior to 20 weeks suggesting that additional iron from prenatal supplements is only needed in the third trimester. Consequently, women who are unaware that they are pregnant do not alter their diet and have a high risk of delivering a low birth weight baby as iron plays a crucial role in fetal growth and development. Second, there is the onset of anemia after the commencement of the pregnancy. This may result from haemodilution (plasma volume increases more than red cell mass), failure to increase iron intake and absorption to match the growing demand or other comorbidities. The etiology and timing of onset is important because anemia is closely associated with increased maternal and infant morbidity and mortality, which in turn are determined by the country's social, economic and health care environment. In a study in rural China, a population of 1587 pregnant women was followed from early pregnancy. Iron supplementation compared with placebo was associated with a significant reduction in maternal anemia at term (38% compared with 53%) and increased birth weight above 2500 grams (75% compared with 70%), but only when iron was initiated after the first antenatal visit and independent of initial Hb concentration. This highlights other socioeconomic factors that contribute to anemia and the difficulties in treating all cases.

In the minds of many, the cause of anemia is simple: not enough iron in the body. The logical solution to this problem would be oral or intravenous iron

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supplementation. Although this course of action is effective, before leaping to it one must ask why is there not enough iron in the body? For a woman in her reproductive years, anemia can be due to a variety of factors such as menstruation, poor diet, or high physical activity. In pregnancy, these usual causes of anemia take a back seat to anemia due to iron and folic acid deficiencies brought on by the demands and physiological changes of pregnancy as well as deficiencies in these vitamins at the onset of pregnancy. Iron requirements are highest in the second and third trimesters, and it is during this time that a woman with marginal iron stores or intake will become anemic. Due to the diverting of iron to the red blood cell mass and the effects of plasma volume expansion, it is estimated that pregnant women need 3-6 times their pre-pregnancy intake of 18mg/day to meet the demands imposed by pregnancy.

In India, 20% of maternal deaths are related to anemia, making it a serious health problem that requires immediate attention. Besides the obvious ill effects on the mother, anemia also puts the child at risk. Intrauterine growth retardation, low birth weight, and prematurity seem to be the main consequences of anemia in pregnancy on the fetus, most likely due to decreased oxygen transport to the fetus [10]. One study has shown a significant increase in neonatal mortality in anemic mothers as compared with non-anemic mothers and it has been postulated that anemia may impair immune status. Once born, babies of anemic mothers are at increased risk for iron deficiency, making it a transgenerational problem that has been called "intergenerational cycle of adverse health outcomes".

Risk Factors. Teenagers are at increased risk for iron deficiency, as are women over the age of 35. There are many factors that contribute to this, not all of which are the same for teenagers and older women. For teenagers, biological growth is occurring concurrently with pregnancy, and many find it difficult to adjust to their increased iron needs. Those who have unplanned pregnancies are even less likely to be in optimal health, so they and their fetuses are at even higher risk for anemia. Older women tend to have children with wider age spans, which is a risk factor for iron deficiency because the older child as well as the fetus will be drawing from the stores of the mother at the same time. Women who are over the age of 40 are also at increased risk for postpartum iron deficiency. This is due to the fact that older women have lower iron stores to begin with, and those who become anemic during pregnancy have less time to replenish their iron stores before menopause.

The association between low socioeconomic status and anemia in pregnancy is strong. Women in developing countries often have poor nutrition, many children, and short intervals between pregnancies, all of which are risk factors for anemia. A study in Malaysia

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found that younger women and those with less education were more likely to be anemic during pregnancy. Similarly, a study in Bangladesh found that inadequate intake of energy and protein and consumption of diets based on rice were significant risk factors for severe anemia in pregnancy.

The main risk factors for anemia in pregnancy are poor diet and parasite infestation. Dietary iron is absorbed best from meat, especially red meat. Iron absorption from vegetarian diets is lower because the iron in plant foods is in a form that is harder for the body to absorb. Likewise, an intake of ascorbic acid (Vitamin C) along with iron enhances its absorption. Women who are carrying more than one fetus are also at increased risk for the development of anemia. The extra fetuses require more blood and thus more iron, but most multiple pregnancies are not diagnosed until the second trimester, after the stores of iron have already been drawn upon.

Maternal Risk Factors for Anemia in Pregnancy. Low socio-economic status, poor diet. - Generally, these significant risk factors are difficult to separate from each other. The effect of a bad diet may present as a risk factor but may be due to a lack of resources to obtain food. - The risk factor of poor diet is almost ubiquitous. In both developed and developing nations, women have difficulty consuming the necessary nutrients for various reasons. In the US and other developed countries, a constant desire to lose weight and consume low-fat diets may result in a deficiency of essential nutrients. In both developed and developing countries, the consumption of non-nutritive substances, as may be seen in pica, may displace essential nutrients and result in anemia. In developing countries, a vegetarian diet may be a risk factor, as the form of iron from meat is more easily absorbed. In all women, the difficulty with consuming iron is due to the fact that only 10-30% of iron consumed is absorbed. During pregnancy, the demand for iron vastly increases, whereas the absorption decreases. Due to this, it is particularly difficult to prevent anemia during pregnancy with diet alone. Another dietary risk factor is the consumption of substances that inhibit iron absorption, such as tannins in tea.

Fetal Risk Factors for Anemia in Pregnancy. Preterm or low birth weight, known for their powerful predictive value for infant and child mortality, are important independent outcomes to study as well as intermediate steps in the pathway to mortality. Globally, 15 million infants are born preterm and this number is rising, disproportionately affecting low and middle-income countries. Preterm is traditionally defined as less than 37 weeks gestation, but the largest proportional increases are in early preterm rates, the point at which the risk of mortality and disability is substantially higher. Low birth weight (LBW, <2500g) is the result of both preterm birth and intrauterine growth restriction (IUGR) and 96.5% of the global

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burden is in the developing world. The final pathway to preterm or LBW is often conceptualized as a cascade of events, some proximate and some more distal, in which the effects of anemia are likely to be context-specific. Anemia has been associated with both preterm and LBW, but the evidence for a causal effect is still developing. A Cochrane review in 2013 included 44 trials and 18,899 pregnant women and found that iron supplementation reduced maternal anemia but its effects on infant outcomes were unclear. Suffice it to say, iron-deficient erythropoiesis is the likely biological mechanism and LBW is a known effect of prolonged undernutrition. High maternal hemoglobin has been associated with preterm in a number of studies and settings. Although it's difficult to establish the direction of effect, with the strongest evidence coming from observational studies and the difficulty to exclude effects of confounding and uterine bleeding. A recent secondary analysis of a trial has provided further evidence for a strong association between iron deficiency without anemia and preterm. The safety of correcting iron deficiency in the presence of high inflammation in malaria-endemic areas needs further research, as at least one trial has raised concerns of high-dose iron increasing the risk of serious and fatal infections. A likely candidate effect of iron deficiency on preterm is from maternal infections and this interaction would be a central theme to the ideological framework for our research. Both preterm and LBW are strong independent risk factors for neonatal mortality and increasing incidence make it important to establish temporal trends and evaluate new preventions.

CONCLUSION

The prevalence of anemia during pregnancy in the sample population is 45.9% according to data from hospitals and antenatal clinics. This indicator differs significantly from official statistics and transforms this problem in our region, according to WHO criteria, into "a problem that is of high importance for public health."

The main reason for the development of iron deficiency anemia is a woman's increased need for iron during pregnancy, which often develops against the background of latent iron deficiency formed in the pregravid period. The frequency of anemia during pregnancy increases from the first trimester - 7.3% by the third trimester -35.2%, and decreases at birth to 22%. In the postpartum period, the prevalence of anemia decreases to 15%. The data obtained indicate the effectiveness of the treatment of anemia, especially at the inpatient stage, and the insufficiently effective measures to prevent anemia during pregnancy. For the treatment of anemia, a regimen of 80-100 mg of iron per day for 6 weeks, followed by a saturation stage of 6-7 weeks according to an intermittent regimen, may be recommended.

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REFERENCES

1. Askarova F. K., Yakhshinorov I. N. Risk Factors and Recommendations for the Treatment of Anemia in Pregnant Women (Literature Review) //Central Asian Journal of Medical and Natural Science. – 2021. – Т. 2. – №. 4. – С. 190-193.
2. Askarova F. K. The Negative Impact of Vitamin D and Other Micronutrient Deficiencies in Pregnant Women //Central Asian Journal of Medical and Natural Science. – 2021. – Т. 2. – №. 6. – С. 380-382.
3. Askarova F. K. BENEFITS OF THE EFFICACY AND SAFETY OF VITAMIN AND MINERAL COMPLEX" VITRUM PRENATAL FORTE" IN THE PREVENTION OF HYPOVITAMINOSIS AND MINERAL DEFICIENCY IN PREGNANCY //The American Journal of Medical Sciences and Pharmaceutical Research. – 2023. – Т. 5. – №. 08. – С. 82-90.
4. ASKAROVA F., ASKAROVA N., ASKAROV K. Anemia during pregnancy //International Journal of Pharmaceutical Research (09752366). – 2020. – Т. 12. – №. 1.
5. Askarova F. K. THE ROLE OF VITAMINS IN IRON DEFICIENCY IN PREGNANT WOMEN //World Bulletin of Public Health. – 2021. – Т. 4. – С. 99-102.
6. Deutchman M., Tubay A. T., Turok D. K. First trimester bleeding //American family physician. – 2009. – Т. 79. – №. 11. – С. 985-992.
7. Dogra V., Paspulati R. M., Bhatt S. First trimester bleeding evaluation //Ultrasound quarterly. – 2005. – Т. 21. – №. 2. – С. 69-85.
8. Kudratovna A. F. REALITIES OF THE TIME: IDIOPATHIC THROMBOCYTOPENIC PURPLE AND PREGNANCY //World Bulletin of Public Health. – 2022. – Т. 11. – С. 22-24.
9. Mukhsinovna H. S., Kudratovna A. F. Dynamics of Hemostasiogram Parameters in Pregnant Women with Chronic Placental Insufficiency //Central Asian Journal of Medical and Natural Science. – 2023. – Т. 4. – №. 1. – С. 346-350.
10. Rakhimovna K. D., Abdumuminovna S. Z. The role of staphylococcal infection in the structure of inflammatory diseases. – 2022.
11. Shopulotova Z. A., Zubaydilloeva Z. K. THE VALUE OF ULTRASOUND DIAGNOSTICS IN PREGNANT WOMEN WITH CHRONIC PYELONEPHRITIS //Бюллетень студентов нового Узбекистана. – 2023. – Т. 1. – №. 9. – С. 19-22.
12. Shopulotova Z. A., Zubaydilloeva Z. K. PERINATAL CARDIOLOGY: PREGNANCY AND CONGENITAL HEART DEFECTS //Евразийский журнал академических исследований. – 2023. – Т. 3. – №. 9. – С. 55-59.
13. Shopulotova Z. A., Zubaydilloeva Z. K., Khudoyarova D. R. COMORBID EVENTS IN PREGNANT WOMEN WITH PYELONEPHRITIS AND PREVENTION OF THESE CONDITIONS //Бюллетень

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педагогов нового Узбекистана. – 2023. – Т. 1. – №. 9. – С. 35-38.

14. Shopulotova Z., Shopulotov S., Kobilova Z. MODERN ASPECTS OF HYPERPLASTIC PRO //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 787-791.
15. Shopulotova Z., Kobilova Z., Bazarova F. TREATMENT OF COMPLICATED GESTATIONAL PYELONEPHRITIS IN PREGNANTS //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 630-634.
16. Васильев А. Г. и др. Патофизиологические особенности массивных кровотечений в гинекологической и акушерской практике //Российские биомедицинские исследования. – 2021. – Т. 6. – №. 4. – С. 23-36.
17. Роненсон А. М. и др. Референсные показатели ротационной тромбоэластометрии у беременных и рожениц: систематический обзор и метаанализ //Анестезиология и реаниматология (Медиа Сфера). – 2021. – №. 3. – С. 28-40.
18. ХУДОЯРОВА Д. Р., кизи ЮЛДАШЕВА А. Н., кизи ШОПУЛОТОВА З. А. ОЗОНОВАЯ ТЕРАПИЯ ДЛЯ БЕРЕМЕННЫХ С ВРОЖДЕННЫМИ ПОРОКАМИ СЕРДЦА //БИОМЕДИЦИНА ВА АМАЛИЁТ ЖУРНАЛИ. – С. 64.