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Iron and folic acid deficiency among antenatal mothers

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Abstract
Iron and folic acid deficiency among antenatal mothers is a significant public health concern, particularly in developing countries like India. Pregnant women require increased amounts of these nutrients to support fetal growth and maternal health. Deficiencies can lead to adverse outcomes such as anemia, preterm birth, and neural tube defects. This article explores the prevalence, causes, consequences, and preventive measures for iron and folic acid deficiency among antenatal mothers, with a specific focus on Madhya Pradesh. The role of supplementation programs, dietary interventions, and policy initiatives is discussed, highlighting the need for targeted strategies to combat this issue effectively.

Keywords: Iron, Folic acid, Antenatal mothers

Introduction
Pregnancy imposes increased nutritional demands on women, making them vulnerable to deficiencies, particularly of iron and folic acid. These micronutrients are crucial for hemoglobin synthesis, fetal development, and overall maternal well-being. Inadequate intake or absorption of iron and folic acid can lead to serious maternal and fetal complications, necessitating urgent public health interventions.

Prevalence of Iron and Folic Acid Deficiency among Antenatal Mothers
Iron deficiency anemia (IDA) is one of the most common nutritional deficiencies among pregnant women worldwide, affecting nearly 40% of pregnancies. In India, the prevalence of anemia among pregnant women remains alarmingly high, with rates exceeding 50% in some regions. Madhya Pradesh, being a state with high maternal mortality and malnutrition, reports significant cases of iron and folic acid deficiency among antenatal mothers.

Causes of Deficiency
1. **Inadequate Dietary Intake:** Poor consumption of iron- and folate-rich foods, such as leafy greens, meat, and fortified cereals, contributes to deficiencies.
2. **Malabsorption Issues:** Conditions like celiac disease, infections, and intestinal disorders can hinder nutrient absorption.
3. **Increased Nutritional Demand:** Pregnancy increases iron and folic acid requirements, which may not be met through diet alone.
4. **Poor Socioeconomic Conditions:** Limited access to healthcare and nutritious food exacerbates deficiencies.
5. **Cultural and Dietary Practices:** Certain traditional diets lack iron-rich foods, contributing to chronic deficiencies.

Consequences of Iron and Folic Acid Deficiency
1. **Maternal Health Risks:** Severe anemia can cause fatigue, increased susceptibility to infections, and complications during childbirth.
2. **Fetal Development Issues:** Deficiency in folic acid is linked to neural tube defects like spina bifida in new-borns.
3. **Preterm Birth and Low Birth Weight:** Iron deficiency increases the risk of

premature delivery and low birth weight infants.

4. **Increased Maternal Mortality:** Anemia is a major contributor to maternal deaths due to postpartum hemorrhage and poor recovery post-delivery.

Preventive Measures and Management

1. **Supplementation Programs:** The Government of India runs the National Iron plus Initiative (NIPI), providing iron and folic acid supplements to pregnant women.
2. **Dietary Interventions:** Encouraging the consumption of iron- and folic acid-rich foods, including pulses, green leafy vegetables, and fortified cereals.
3. **Education and Awareness Campaigns:** Informing women about the importance of micronutrients during pregnancy through health workers and community outreach programs.
4. **Regular Antenatal Check-ups:** Early detection and management of anemia through routine hemoglobin screenings and medical supervision.
5. **Food Fortification:** Increasing availability of fortified foods such as iodized salt, iron-fortified wheat flour, and fortified rice.

Policy Initiatives in India

Several governmental and non-governmental organizations work towards reducing iron and folic acid deficiency among pregnant women. The Anemia Mukt Bharat (AMB) campaign is a key initiative aiming to reduce anemia prevalence through targeted interventions, supplementation, and awareness programs.

Challenges and the Way Forward

Despite significant efforts, challenges such as inadequate healthcare access, low compliance with supplementation, and persistent dietary deficiencies hinder progress. Strengthening healthcare infrastructure, improving dietary diversity, and enhancing public awareness are crucial for sustainable improvements.

Conclusion

Iron and folic acid deficiency among antenatal mothers is a pressing public health issue with severe consequences for maternal and fetal health. Addressing this problem requires a multi-faceted approach, including supplementation, improved dietary practices, and strong policy implementation. Continued efforts and research are necessary to ensure better maternal health outcomes, particularly in high-risk regions like Madhya Pradesh.

Conflict of Interest

Not available

Financial Support

Not available

References

1. World Health Organization (WHO). Iron deficiency anaemia: Assessment, prevention and control. Geneva: WHO; c2001.
2. National Family Health Survey (NFHS-5). Government of India; c2020-21.
3. Ministry of Health and Family Welfare, Government of India. Anemia Mukt Bharat Guidelines. 2018.
4. Stoltzfus RJ. Iron deficiency: global prevalence and consequences. Food Nutr Bull. 2003;24(1):S99-S103.
5. Black RE, Victora CG, Walker SP, Bhutta ZA, Christian P, de Onis M, *et al*. Maternal and child undernutrition and overweight in low-income and middle-income countries. Lancet. 2013;382(9890):427-451.
6. Pathak P, Kapil U, *et al*. Prevalence of iron deficiency anaemia among pregnant women in urban slums of Delhi. Indian Pediatr. 2009;46(4):330-332.
7. Gopalan C. Nutrition in pregnancy. Indian J Med Res. 2002;116(1):1-10.

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