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Women's Anemia Due To Iron Deficiency: An another Obstacle to Indian Growth

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Abstract

Women provide the majority of health care globally, in both official and informal settings, as well as at home. Unfortunately, their own health needs, particularly in rural and impoverished areas, are underserved. There is a need for a more comprehensive, evidence-based life cycle agenda for women's health that is not limited to pregnancy and the postpartum period. Anemia has a negative impact on women's health, resulting in higher maternal mortality, prenatal morbidity, preterm birth, and low birth weight, among other things. The article focuses on iron deficiency anaemia, which is the greatest in the world among Indian women.

Keywords: *Anemia, Iron deficiency, Pregnant Women*

INTRODUCTION

Iron deficiency anaemia in women is a significant public health concern in India [1]. Anemia is defined by the World Health Organization as a haemoglobin concentration of less than 120 g/L in non-pregnant women aged 15 and above, and less than 110 g/L in pregnant women [2].

Iron shortage has long-term implications for future generations, as it increases the risk of preterm labour, low birth weight, and infant mortality, as well as predicting iron insufficiency in babies beyond 4 months of age [3]. Anemia, of which iron insufficiency is the most common cause, is responsible for 3.7 percent and 12.8 percent of maternal fatalities during pregnancy and delivery, respectively, across Asia [3].

Anemia is asymptomatic in its lesser forms, and it is often overlooked on clinical examination. It is linked with symptoms such as tiredness, weakness, dizziness and sleepiness, and dyspnea with typical exercise in its more severe forms. If left untreated, it may progress to the point where it becomes an underlying cause of chronic illness.

Anemia in pregnant women may lead to poor foetal growth and development, greater blood loss during delivery, increased vulnerability to heart failure, increased infection risk, and increased maternal and foetal death, to mention a few. What's more, babies born to severely anaemic mothers have delayed cognitive development, are more susceptible to infections, have reduced physical capacity, have impaired infant and child health and development, have limited learning capacity, have impaired immune functions, and have reduced working and productive capacity (Table 1). As a result, the consequences of anaemia are terrible; they are not only a burden on society but also a hindrance to the country's growth and development.

The Ministry of Health and Family Welfare Government of India recognises the significant burden of anaemia in the nation (about 53 percent of women) in the National Family Health Survey (2015-2016) and the 2017 National Family Health Policy [4,5]. It is unsurprising that India has the largest number of anaemic women in the world, which raises the risk of maternal and infant mortality and has serious economic consequences for the country's growth [6].

Table 1: Effect of anemia on pregnancy

Neural Tube defects(Esp Folate def)	**Susceptibility to infection**
Miscarriage	Heart decompression & failure
IUGR/Low birth weight	Preterm labour & delivery
Prematurity	Post -partum hemorrhage
Anemia in Infancy	Mental lassitude & loss of working hours
IUFD	Death

Age group	Intervention/dose	Regime	Service delivery
6–60 months	1 mL of IFA syrup containing 20 mg elemental iron and 100 µg folic acid	Biweekly throughout the period 6–60 months of age and biannual deworming for children aged 12 months and above	• Through ASHA • Inclusion in MCP card
5–10 years	45 mg elemental iron and 400 µg folic acid	Weekly throughout the period 5–10 years of age and biannual deworming	• In school through teachers and for children who are out of school through anganwadi centre • Mobilization by ASHA
10–19 years	100 mg elemental iron and 500 µg folic acid	Weekly throughout the period 10–19 years of age and biannual deworming	• In school through teachers and for those out of school through anganwadi centre • Mobilization by ASHA
Pregnant and lactating women	100 mg elemental iron and 500 µg folic acid	1 tablet daily for 100 days, starting after the first trimester, at 14–16 weeks of gestation; repeated for 100 days postpartum	• ANC/ANM/ASHA • Inclusion in MCP card
Women of reproductive age (15–49 years)	100 mg elemental iron and 500 µg folic acid	Weekly throughout the reproductive period	• Through ASHA during house visit for distribution of contraception

ANC: antenatal care; ANM: auxiliary nurse midwife; ASHA: accredited social health activist; MCP: mother–child protection.

Source: Guidelines for control of iron deficiency anaemia. National Iron+ Initiative. Towards infinite potential in an anaemia free India. New Delhi: Ministry of Health and Family Welfare, Government of India; 2013 (http://www.pbnrhm.org/docs/iron_plus_guidelines.pdf).[9]

Figure 1: Dietary recommendations for iron intake

In 1970, India became the first nation to establish a National Anemia Prophylaxis Program to combat IDA (iron deficiency anaemia) [7,8]. In 1993, the National Nutrition Policy was established, and it served as the foundation for the National Plan of Action to Combat Anemia [6]. Because of the significant prevalence of anaemia in India, one of the 12th Five Year Plan's (2012-2017) objectives was to decrease anaemia in girls and women by 50%, or to 28% by 2017. Interventional guidelines were established by the The National Iron + effort aims to reduce IDA's impact. The goal of the National Iron + programme was to address IDA at all life phases, extending current advice for children, pregnant women, and nursing mothers to include adolescents (boys and girls aged 10 to 19 years) and women of reproductive age (aged 15 to 49 years) [6].

India's national policy mandates that pregnant and breastfeeding women get 100 mg of elemental iron and 500 mg of folic acid per day, which is considerably higher than the WHO's recommendation (30-60 mg of elemental iron) [9, 10]. (See Figure 1) Poor intake and adherence, on the other hand, continue to be a problem for India's public health system [11]. Irregular intake of IFA during pregnancy may be owing to its adverse effects and unpleasant metallic taste; greater iron doses are linked with substantial gastrointestinal side effects, which are likely to explain the poor adherence.

Anemia is caused by a combination of dietary and pathogenic factors. Food monotony, low dietary intake, low iron (20 mg/day) and folic acid (70 g/day, high in phytates, limiting iron absorption so that dietary iron cannot be used by the body) are the most frequent nutrition variables. 12. Iron insufficiency is often exacerbated by low nutritional status, particularly when it is combined with folic acid, vitamin A, or vitamin B12 deficiency. Infections that induce persistent blood loss, such as malaria, which affects 300-500 million people worldwide and may be the main cause of 50% of all severe anaemia cases in endemic regions. Illnesses such as gastrointestinal infections, hookworm infestations such as Schistosomiasis, Dracunculus medinensis, or Guinea worm found in Rajasthan's step wells are other culprits.

Our society's most important element is socio-cultural. Women are discriminated against from birth, to the point of neglect, and they are malnourished from infancy due to our patriarchal culture. Anemia affects girls and women due to nutritional deficiencies such as protein, vitamin C, and iron. A woman's position in the family and community after marriage is defined by her reproductive duties, as well as the number of male children she bears. The need for iron rises throughout the teenage period when menstruation begins. With 0.6 mg of iron, approximately 40-80ml of blood is lost per month. Due to discriminatory societal attitudes and dietary limitations, the higher need for iron is not fulfilled. According to the World Health Organization, women of reproductive age need 23% more iron than males or older women? [10].

The female kid is often not only nursed for a shorter period of time, but also receives delayed food supplements. The majority of girls are not prepared to make decisions about their lives, health, education, or marriage. This is true even when it comes to food distribution and consumption. Lack of self-esteem causes a woman to give her husband and male family members the best of everything, despite the fact that she is meant to eat last, eat less, and never complain.

CONCLUSION

Anemia as a medical illness is just the tip of the iceberg; the core of the problem is found in the sociopolitical and economic realms. Anemia prevention requires a wide variety of measures including cooperation across various sectors (health, education, justice, and

employment) as well as long-term, far-sighted policies from both local and national governments, including the National Health Policy.

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