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Original Research Article

ANALYSIS OF IRON DEFICIENCY ANEMIA IN ADOLESCENT GIRLS

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Abstract

Background: To analysis of prevalence of iron deficiency anemia in adolescent girls
Methods: This was cross-sectional study. All the adolescent girls who were given consent to hemoglobin estimation were included in the study.
Results: The prevalence of anemia among adolescent girls was found as74.00%. Out of 74 anemic girls, 54.00% girls were suffering from mild degree of anemia and 17.00% girls were having moderate degree of anemia. Only 3.00% girsl was found severely anemic.
Conclusion: The prevalence of anemia among adolescent girls is alarmingly high in India.
Keywords: Prevalence, Anemia, Adolescent.

Introduction:

Anemia is defined as a condition in which the number of red blood cells (RBCs) and their oxygen-carrying capacity is insufficient to meet the body's physiologic needs. It is a condition when the normal number of RBCs (<4.2 million/μl) or hemoglobin (Hb) level <12 g/dl) in women and < 13 in men. Globally, anemia is the most common and inflexible nutritional problem affecting around 2 billion of the world's population having major impact on human health and social and economic development; and more than 89% of this burden occurred in developing countries.[1]

Accounting half of all cases, iron deficiency anemia is the most common cause of anemia. However, other conditions like nutritional deficiencies, acute and chronic inflammation, parasitic infections, growth spurt, increase in iron requirements, increased iron loss from the body during the menstruation, inherited or acquired disorders of hemoglobin synthesis, RBC production, or survival are also considered cause of anemia[2]

Even though iron deficiency anemia can possibly occur at all stages of the life, it is more prevalent among pregnant women, young children, and adolescents. Since the overall iron requirement increases two- to threefolds during adolescence due to high growth spurt and the loss of 12.5-15 mg iron each month, adolescent girls are vulnerable to anemia. Anemia during adolescence is nutritional problem and it has irreversible negative effects on growth and cognitive, work performance and serious impact throughout the reproductive years of life and beyond. Occurrence of pregnancy during adolescence with anemia increases not only the maternal morbidity and mortality but also the incidence of poor maternal birth outcomes such as still birth, low birth weight, and prematurity and also has negative impact on infant iron [3-6]

Materials and Method

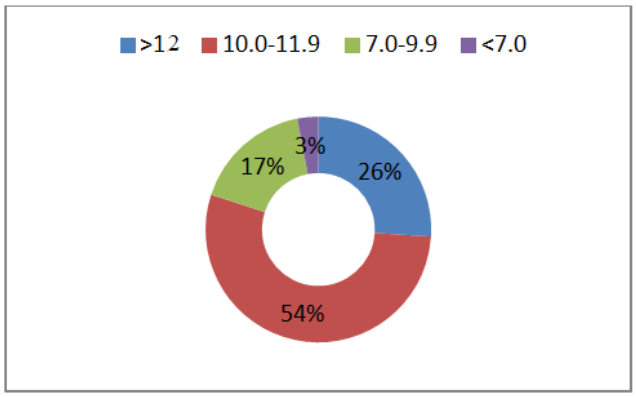
This was cross-sectional study. All the adolescent girls who were given consent to hemoglobin estimation were included in the study. The girls ≥20 years, and those suffering from any chronic disease were not included in the study. A total of 100 girls were interviewed and were investigated for their Hemoglobin concentration. A predesigned and pretested schedule was used to collect the information about the participants.

Results

Table 1: Prevalence of anemia among adolescent girls (N = 100)

Hb level (g/dl)	No. of girls	Percentage
>12	26	26.0
10.0-11.9	54	54.00
7.0-9.9	17	17.00
<7.0	3	3.00
Total	100	100.00

The prevalence of anemia among adolescent girls was found as74.00%. Out of 74 anemic girls, 54.00% girls were suffering from mild degree of anemia and 17.00% girls were having moderate degree of anemia. Only 3.00% girsl was found severely anemic.



Discussion

Anemia during adolescence influence women's entire life cycle. It also has negative consequences for survival, growth, development of their children later in life. The Government of India has made the adolescent health as a part of RCH package since 1997.

Later to combat the problem, Government of India started Adolescent Girls anemia Control Program with technical support from UNICEF. The main interventions of this program were later continued under the heads of SABLA and WIFS scheme under Rashtriya Kishor Swasthya Katyakram (RKSK). In the base line survey for the program by UNICEF, 65- 99% of adolescent girls were found anemic, at various states of country. [8]

In this study the prevalence of anemia among adolescent girls was observed as 74.00%, which is very close to the observations taken by Ratiet al[9] and Patnaik et al[10], who found the prevalence as 80% and 78.8% in their studies in rural areas of Karnataka and Odisha respectively. Though Kaur et al [11] observed anemia prevalencerate as 59.8% in rural Wardha (Maharashtra). Whereas a very high prevalence of anemia (90.1%) was noted by Kulkarni et al [12] in adolescent girls of a urban slum in Nagpur.

Conclusion

The prevalence of under nutrition and anemia among adolescent girls is alarmingly high in India.

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