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IRON DEFICIENCY ANEMIA IN ADOLESCENT GIRLS

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ABSTRACT

Background- To study the prevalence of iron deficiency anemia in adolescents girls.
Methods- This was cross-sectional study. All the adolescent girls who were given consent to hemoglobin estimation were included in the 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 as73.6%. Out of 736 anemic girls, 536 girls were suffering from mild degree of anemia and 173 girls were having moderate degree of anemia. Only 27 girls was found severely anemic.
Conclusion- The prevalence of anemia among adolescent girls is alarmingly high in India.

KEYWORDS : Prevalence, Anemia, Adolescent.

INTRODUCTION

Iron deficiency impairs work performance both during intense short-lived exercise and longer intervals. The decrease in work capacity is proportional to blood hemoglobin concentration. Low hemoglobin concentration in blood results in decreased oxygen capacity of hemoglobin with the parallel effect on blood carbon dioxide transport.[1-4]

Iron deficiency also results in decreased iron containing enzymes of mitochondrial respiratory chain in skeletal muscles with a concomitant decline in muscle respiratory capacity to utilize oxygen. This reduction in aerobic metabolism is associated with an increased susceptibility to fatigue.[5]

WHO has classified anemia into three categories: mild (11.0 - 11.9 g/dl), moderate (8.0 - 10.9 g/dl) and severe (< 8 g/dl) anemia [6]. UNICEF classified anemia to be mild in children, adolescent girls and pregnant women if the Hb level in blood is between 8.0 and 10.99 g/dl among children, 10.0 to 11.99 g/dl among adolescent girls and 8.0 - 10.99 g/dl Hb level among pregnant women. For severely anemic the Hb level should be below 5.0 g/dl among children, 8.0 g/dl among adolescent girls and 5.0 g/dl among pregnant women. Accordingly moderate anemia is denoted when the Hb level is between mild and severe anemia[7].

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
>11	26	26.00
10.0-11.9	53	53.00
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, 53 girls were suffering from mild degree of anemia and 17 girls were having moderate degree of anemia. Only 3 girls 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 RashtriyaKishorSwasthyaKatyakram (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 76.00%, 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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