

A research study on Anemia with remedial measures in college girl students with special reference to their diet

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ABSTRACT

Anaemia is a condition still prevalent in India. In villages, lack of money and less awareness among Women about their health leads to Anaemia. In Urban India, life style and excessive consumption of junk foods and improper dietary awareness cause Anaemia. Health is an asset to human being, his community and has come to be regarded as prerequisite to socio economic development. The health of Indian women is intrinsically linked to their status in society. There is a strong male child preference in India, as sons are expected to care for parents as they age. The son preference, high dowry costs for daughter, low level of education, under the control of first their father, then husband, and finally sons. All these exert the negative impact on health status of Indian women. Women in poor health affect household, economic wellbeing, less productive in labour force and gynaecological problems. The study was conducted from July 2017 to December 2017 in our college (B. A., B.Com, B.Sc. and M.Sc. girl's students) to analyze the haemoglobin count and associated their health problems. The data was collected from 70 girls with the help of questionnaires for same. The identify problems are weakness, anaemic condition, low Hb count, menses problem, vertigo and gynaecological problems.

Key Words: Hb Count, Health problems.

INTRODUCTION

The term 'Anaemia' refers to 'a reduction below normal in the concentration of haemoglobin or red blood cells in blood. Anaemia may be regarded in physiological term as 'reduction in oxygen transporting capacity of blood'. Health is an asset to human being. The health care in rural areas is low as compared to urban areas. Under these circumstances, it is considered worthwhile to take a stock of health status of rural girls in the age of 16 to 22 years. The haemoglobin concentration of the blood is widely used as a tool in assessment of health. In these respect children from 6 years and women provides much attention. The state of knowledge concerning haemoglobin level in this age group is still unsatisfactory because majority of girls are suffered from number of deficiency systems and anaemia. Undoubtedly, this

may shows adverse effect on growth of body and create future problems. They ignore the nutrition necessities of the girls even when they are married, pregnant and need most. The household responsibilities of female and lack of nutritious food causes no. of health hazards to rise among them.

The iron needs are highest in growing girls because of increased requirements for expansion of blood volume associated with growth spurts and onset of menstruation. (Beard JL, 2000). Thus growth spurts, menarche, poor diet, no added iron supplementation puts them into the high risk category of iron deficiency anaemia. These girls after marriage subjected to added demands for iron during pregnancy hence they need to have better status of haemoglobin. Regulation of iron balance occurs mainly in the gastrointestinal tract through absorption. Iron in diet is present in heme and non heme forms. These two forms are absorbed differently. Heme form is present in meat, chicken and is absorbed two to three times faster than the non heme form which is found in plant based foods and iron fortified foods. (Mangels R, 2000) Enhancers of iron absorption are heme iron and vitamin C; inhibitors of iron absorption include polyphenols, tannin and calcium. (Siengenber D et al, 1991)

With this background, the present study was undertaken to determine the status of health consciousness at basic level.

METHODOLOGY

The study was conducted on 70 girl students from B.A., B.Com, B.Sc. and M.Sc. classes. The age group varies from 17 to 22 years. The selection of girls was random. The haemoglobin estimation was done by Cyanmeth Colorimetric Method. The investigations were carried out as baseline data and put in table 1.

RESULTS AND DISCUSSION

Table1: Showing list of girls with haemoglobin percentage

Sr.No.	Name of the Students	Haemoglobin Percentage
1.	Jadhav Prajakta M.	12
2.	Jagtap Chetana N.	10

3.	Dhumal Aarti C.	9.6
4.	Chavan Sushmita S.	11
5.	Gujar Prajakta P.	9.5
6.	Mohite Rutuja P.	12.5
7.	Jadhav Vishakha V.	9.5
8.	Kamble Suvarna S.	11.2
9.	Nipane Gouri S.	10.3
10.	Nalavade Anjali R.	9
11.	Bhosale Saloni V.	11
12.	Vavghane Snehal A.	11
13.	Ithape Pallav i S.	11
14.	Khamkar Sushma S.	12.5
15.	Jamadar Saniya S.	11.5
16.	Jadhav Nishigandha D.	12.6
17.	Nikam Aparna A.	9.0
18.	Khanavikar Mayuri P.	12
19.	Maske Trupti T.	10.6
20.	Nalavde Priyanka K.	13
21.	More Advika V.	14
22.	Mane Yogita S.	12
23.	Dome Vishakha S.	11
24.	Kadam Akshata R.	11.4
25.	Jawale Sonali B.	15
26.	Kavare Priya V.	10.2
27.	Gurav Jayshree D.	10.5
28.	Jadhav Anita B.	11.8
29.	Jadhav Aasha S.	11.3
30.	Gujale Mayuri B.	12
31.	Pawar Sunita S.	10
32.	Mane Varsha S.	11
33.	Khan Najnin N.	11.2
34.	Mhetre Mahadevi N.	11.5
35.	Mulani Shakila S.	9.2
36.	Nikam Tejashree S.	11.8
37.	Jadhav Supriya U.	11
38.	Nikam Shraddha S.	10.2
39.	Jadhav Soumitra S.	10.4
40.	Nalawade Anikita S.	10.8
41.	Chorat Sudha S.	12
42.	Khamkar Shubhangi M.	12.1
43.	Katkar Rohini H.	8.1
44.	Nalavade Harshda J.	12
45.	Kshirsagar Savita H.	12.2
46.	Kadam Rvina A.	11
47.	Jadhav Komal R.	10.6
48.	Khamkar Poonam R.	11
49.	Bhawar Tejaswini R.	11.2
50.	More Monali R.	7.7
51.	Bagban Ayesha A.	8.4

52.	Pathan Aashiya S.	10.1
53.	Deshpande Gouri R.	12.4
54.	Gawade Pranali S.	12.5
55.	Pawar Ankita A.	10.4
56.	Kamble Sushila D.	10.2
57.	Momin Amisha Z.	8.8
58.	Nikam Shivani S.	8.2
60.	Kamble Sunita D.	10.2
61.	Gurav Rutuja S.	12.2
62.	Jadhav Aparna R.	12.4
63.	Dhage Vanita J.	12.3
64.	Ghadge Komal M.	11.0
65.	Gaikwad Neha V.	11.2
66.	Gaikwad Sarika P.	10.4
67.	Ghorpade Pratiksha S.	10.6
68.	Dhapale Pratiksha N.	10.5
69.	Kamble Madhubala A.	11.4
70.	Wagh Seema S.	11.7

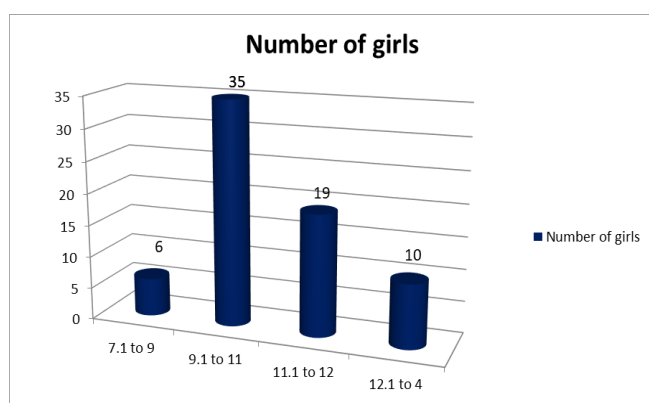


Fig. 1: Graphical representation of Haemoglobin percentage in college girls.

CAUSES OF LOW LEVEL OF HB

An anemic person, is usually pale, has dull-tired eyes, feels dizzy and faints, lacks energy and is breathless, when he slightly exerts himself.

- Anaemia and Menorrhagia
- Easy fatigability
- Menstrual bleeding
- Erythropoietin deficiency, Red blood cell destruction
- Lead poisoning
- Iron, folate, vitamin B 12 Or vitamin B6 deficiency
- Overhydration
- Breathing difficulty
- Feet and hands feel cold
- Depression
- Malnutrition

Since girl students in the colleges are at the threshold of getting married in the next few years, it's important for them to maintain adequate Hb level. This study would help in containing the maternal mortality by way of making the young girls aware about their health needs. The **03** girls were found less than 7 grams and **35** girls were found haemoglobin percentage below normal level are referred to hospitals for further diagnosis and treatment. The awareness regarding anaemia and appropriate diet is extremely poor in these girls. Hence lectures on nutrition and good eating habits were organised for these girls. The girls were also advised to increase the number of daily meals with vitamin C rich foods in combination with iron rich foods daily. The National Family Health Survey (NHFS-3) conducted in 2005-2006 presents the statistics that 56% of adolescent are anaemic. A recent study in same age group girls of Wardha, India (Kaur S. et al, 2006) found prevalence of anaemia to be 59.8% with significant association of low iron intake, vegetarian diet and excessive menstrual bleeding, similar to our study.

CONCLUSION

1. It was found that many girl students were not aware of their height, weight, blood group and haemoglobin content were found to be anaemic with their haemoglobin less than 12.5gms/lit.
2. Increase the physical activity.
3. Eat fruits that produce antioxidants- basically have a healthy lifestyle to avoid any health problems.
4. Due to anaemia, efficiency of working goes down, learning and thinking skills are also affected.
5. Colleges must organise health awareness camps to improve iron deficiency.
6. Nutrition Education and supplementation should be a part of education system to improve iron status (haemoglobin %) of girls, so that their future is without any serious problems.
7. Some women's health problems will require a bit more effort than others, but virtually all can be eliminated if proper natural health steps are taken to eliminate the causes.
8. To improve your health wellness and fitness levels through exercise, healthy eating and regular health screenings.

SUGGESTIONS TO INCREASE THE HEAMOGLOBIN LEVEL:

- Good sources of iron are- whole wheat, brown rice, green leafy vegetable (spinach, broccoli. Cabbage, fenugreek, lettuce, beet, cherries, tomatoes, dates, figs.
- Green peas Mustard greens, Arugula, Dandelion Greens Collard Greens, Romaine Lettuce, Swiss Chard, etc are great sources of vitamin A, C, K, folate, calcium and iron. These foods are packed with antioxidants that prevent the occurrence of conditions like cancers and cardiovascular disorders.
- Milk and its products, egg, organ meat and soy are the best sources.
- Sources of Vitamin B. – whole cereals, fruits and vegetables and milk.
- Beet is an ideal food, which stimulates haemoglobin production. It regenerates RBC production and speedily fights the symptoms of anemia.
- Egg, organ meat beef, chicken and lamb.
- Iron supplements in tablets and capsules.
- Apricots, dates, raisins, Cashew nuts, figs, soy, sesame seeds, etc are also rich sources of iron.
- Anulom-vilom, a breathing technique (PRANAYAMA), should be done, religiously every day. It purifies the body; throwing out toxins, improve body's resistance and helps in normal vesicular breathing.

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