www.wjcmpr.com ISSN: 2582-0222

WORLD JOURNAL OF CURRENT MEDICAL AND PHARMACEUTICAL RESEARCH

Impact Factor-4.598

Research Article Open Access

NUTRITIONAL DEFICIENCY ANEMIA IN YOUNGERS AND PREGNANT WOMEN

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ABSTRACT

Introduction: Anemia was global health problem. It was highly prominent in India was caused by nutritional deficiency in younger individuals due to lack knowledge on diet.

Methods and materials: This study performed in Sri Venkateswara college of Pharmacy, Etcherla, Srikakulam. And RIMS Hospital, Srikakulam. Study performed based on cohort study. Data was collected from student's blood samples tested by using Sahlisehematometer manual method. Recorded data from hospital regarding pregnant women.

Result: Total 300 samples was collected in that 100 student samples, 50 Pregnant women total 150 samples was effected with anemia in that younger female students was highly 16% anemic 9-9.9 Hb%, In males 28% lower anemic than females and also Hb% 12- 12.9 is higher than females.

Discussion: In our study younger females were highly affected by anemia same as author study reported but they saying lack of knowledge on diet was leads to the Anemia. Authors in those study in Pregnant women 15-20 aged more women affected with anemia but in our study saying 21-25 years ages more women was affected by anemia.

Conclusion: In our study highly females were affected with anemia due to lack of knowledge on diet, economical, social problem and more over now a day's food habit life style.

Key Words: Anemia, Nutritional deficiency, Hemoglobin, Blood, Females, Males, Pregnant women**,** Students.

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Article History *Received: 02.07.2019, Accepted: 27.07.2019, Available on Online: 15.08.201*

INRODUCTION:

Anemia is a global public health problem which affects both the developing and developed countries it was an indication of poor nutrition and poor health with major consequences for human health, as well as for the social and economic development of a population [1].World Health Organization (WHO) definition (hemoglobin concentration <12 gr/dl in women and <13 gr/dl in men) is the most frequently used in epidemiologic studies[2]. Mostly women were suffering with anemia than the man out of that younger 15-25 years aged group girls were higher prevalence with anemia. As per religion most of Hindus were suffering with anemia in India. In Pregnant women first trimester pregnant women were affected with anemia[3]. Anemia was increases while increasing of age. As per the anemia classification normocytic prevalence in elderly patients was causes by different multiple factors like nutritional deficiency, renal failure, highly blood lose anemia were more prevalent than other class of anemia because lack of serum ferritin[4]. In India anemia disease was highly, malignancy[5].

METHODS AND MATERIAL:

These study location in Sri Venkateswara college of Pharmacy, Etcherla, Srikakulam. And Rajiv Gandhi Institute of medical science and hospital, Srikakulam. We are collected data based on method of Cohort study (both Retrospective method of data in Students of Sri Venkateswara college of Pharmacy, Etcherla, Srikakulam. and Prospective method of data in pregnant women in Rajiv Gandhi Institute of medical science and hospital, Srikakulam). We are used material like Sahlisehematometer (This material used for manual method to estimate hemoglobin percentage) to collect the data from students and prescribed lab data from the hospital regarding Pregnant women. These data was compared with standard WHO values of Hb (hemoglobin) in males normal range 13 to 15gr/dl. And female normal range 12 to 14 gr/dl of blood.

INCLUSION CRITERIA:

Included both male and female student's data. Collected data from pregnant women prescribed lab data regarding Hb value only. Used sterilized instruments for collecting data from students by their wish. Patient counseling was given regarding nutritional diet both of students and pregnant women. Data collected regarding only nutritional deficiency anemia. Collected blood grouping data both from students and pregnancy women. Data was collected from age between 18 to 31 years in both Students and Pregnant women.

EXCLUSION CRITERIA:

We left Drug induced anemia lab data. Hemorrhagic anemic lab data in Trauma cases. Excluded hear Children's and Geriatrics anemic cases.

RESULTS:

Total 300 samples were collected in that 100 samples of student data were lower Hb values and 50 lab data of pregnant women lower Hb values was compared to WHO normal values. Along with Hb data we collected 150 members of Blood Grouping from total samples, in that major O (+ve) group of blood is high.

Table No.1: Hemoglobin abnormal values in different gender in Students.

Sl.No.	Gender	Hb gr/dl Values	No of Samples	% of Samples
1	**Male**	6 – 6.9	0	0
		7 – 7.9	0	0
		8 – 8.9	0	0
		9 – 9.9	0	0
		10 – 10.9	07	07
		11 – 11.9	13	13
		12 – 12.9	28	28
		13 – 13.9	02	02
2	**Female**	6 – 6.9	08	08
		7 – 7.9	09	09
		8 – 8.9	14	14
		9 – 9.9	16	16
		10 – 10.9	02	02
		11 – 11.9	01	01
		12 – 12.9	0	0
		13 – 13.9	0	0

Total 100 samples of students in that males near to abnormal hemoglobin 12-12.9 Hb gr/dl value is high28% samples than in female samples abnormal hemoglobin 9 – 9.9 Hb gr/dl was high 16%,but in males no one samples of lower abnormalvalue of hemoglobin 6-6.9 Hb gr/dl compared to female samples 8% of hemoglobin 6-6.9 Hb gr/dl.In males normal value of hemoglobin 13-13.9 Hb gr/dl samples 2% was higher than the female normal value of hemoglobin 12-12.9 Hb gr/dl samples was nil. Summarization of data was randomized in table No.1 and Fig.1.

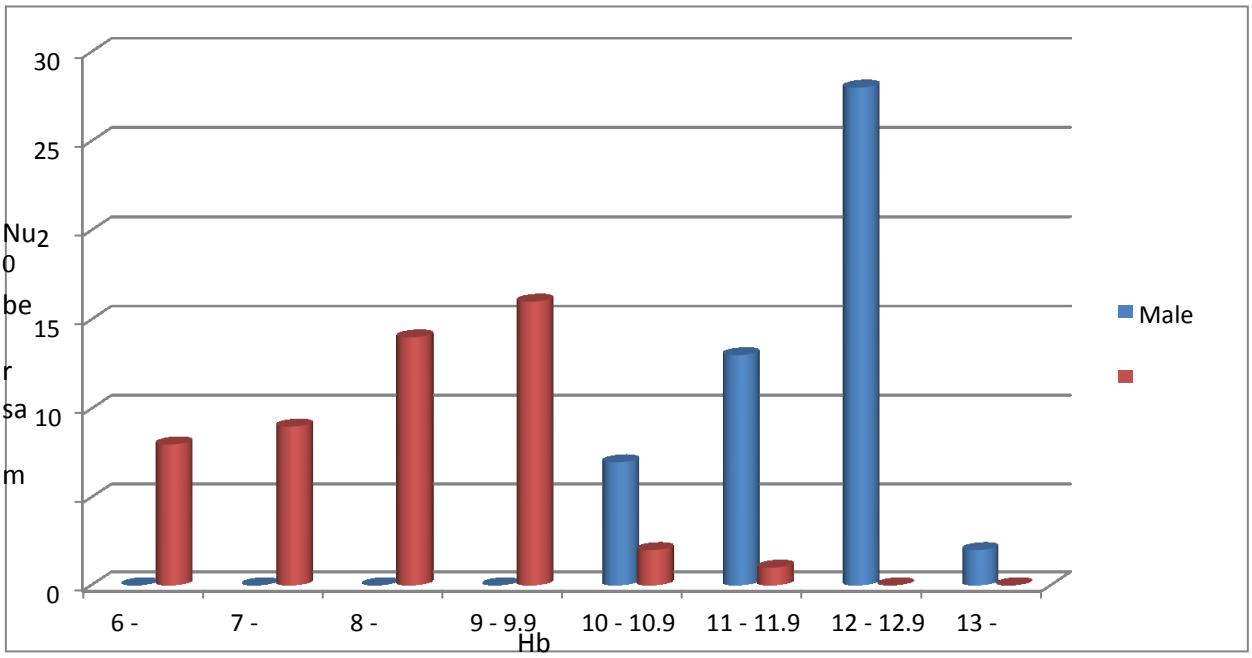


Fig No. 1: Hemoglobin abnormal values in different gender in Students.

Table No.2: Hemoglobin percentage based on age factor in students.

Sl.No.	Age in years	Hb gr/dl values	No of males	% males	No of females	% females
1.	18 – 20	6 – 8.9	0	0	13	13
		9 – 11.9	10	10	4	4
		12 – 14.9	10	10	0	0
2.	21 - 25	6 – 8.9	0	0	18	18
		9 – 11.9	6	6	14	14
		12 – 14.9	16	16	0	0
3.	26 - 30	6 – 8.9	0	0	0	0
		9 – 11.9	2	2	1	1
		12 – 14.9	3	3	0	0
4.	31 - 35	6 – 8.9	0	0	0	0
		9 – 11.9	1	1	0	0
		12 – 14.9	1	1	0	0
5.	36 - 40	6 – 8.9	0	0	0	0
		9 – 11.9	1	1	0	0
		12 – 14.9	0	0	0	0

These 100 samples of data was randomized based on age criteria in 18-20 years males normal value of hemoglobin 12-14.9 Hb gr/dl samples 16% higher than female samples nil, but in females lower abnormal hemoglobin 6-8.9 Hb gr/dl sample higher 13%than male samples nil. In age 21-25 years in males normal hemoglobin 12-14.9 Hb gr/dl samples 16% higher than female samples nil, but in abnormal hemoglobin 6-8.9 Hb gr/dl samples 18% higher in females than male samples nil. In this randomized data higher samples 18% lower hemoglobin 6-8.9 Hb gr/dl value age of 21-15 years female than normal hemoglobin 12-14.9 Hb gr/dl samples 16% same age of males. These summarized data distributed in table no.2 and fig no.2.

Fig No.2: Hemoglobin percentage based on age factor in students.

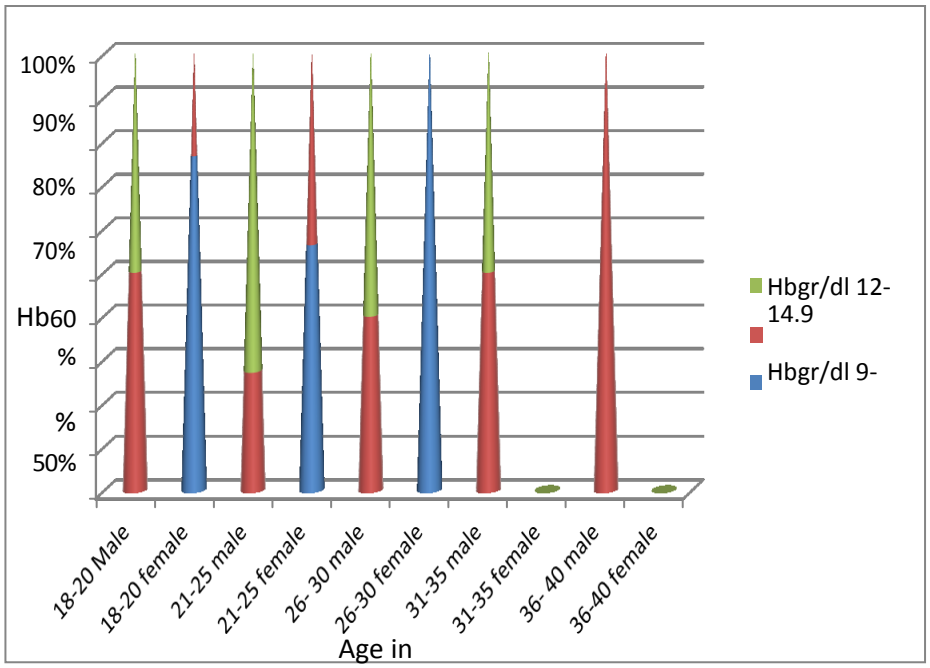


Table No.3: Hemoglobin percentage value in pregnant women.

Sl.No.	Age in years	Hb gr/dl value	No of Pregnant women	% of Pregnant women
1.	18 - 20	6 – 8.9	14	28
		9 – 11.9	05	10
		12 – 14.9	0	0
2.	21 - 25	6 – 8.9	18	36
		9 – 11.9	09	18
		12 – 14.9	0	0
3.	26 - 30	6 – 8.9	3	6
		9 – 11.9	0	0
		12 – 14.9	0	0

4.	31 - 35	6 – 8.9	0	0
		9 – 11.9	0	0
		12 – 14.9	0	0
5.	36 - 40	6 – 8.9	1	2
		9 – 11.9	0	0
		12 – 14.9	0	0

Total 50 samples of pregnant women (PW) in that abnormal hemoglobin 6-8.9 Hb gr/dl samples 18 (36%) higher in 21-25 age group in PW, but samples nil in 31-35 age group PW. These data was distributed in table no.3 and fig no.3

Fig No.3: Hemoglobin percentage value in pregnant women.

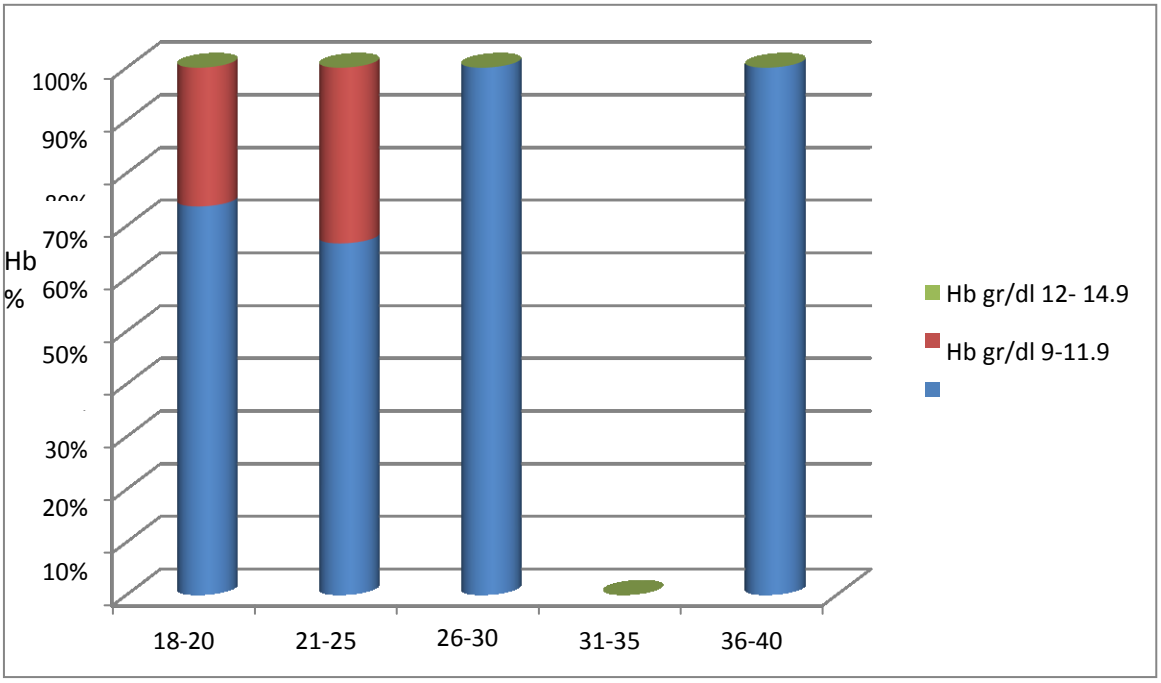
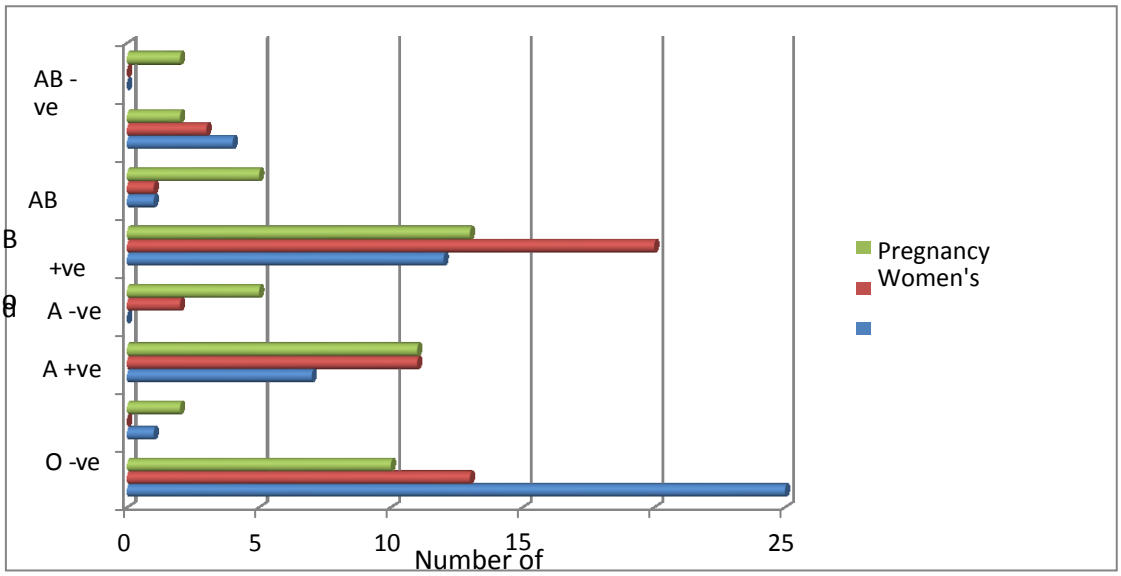


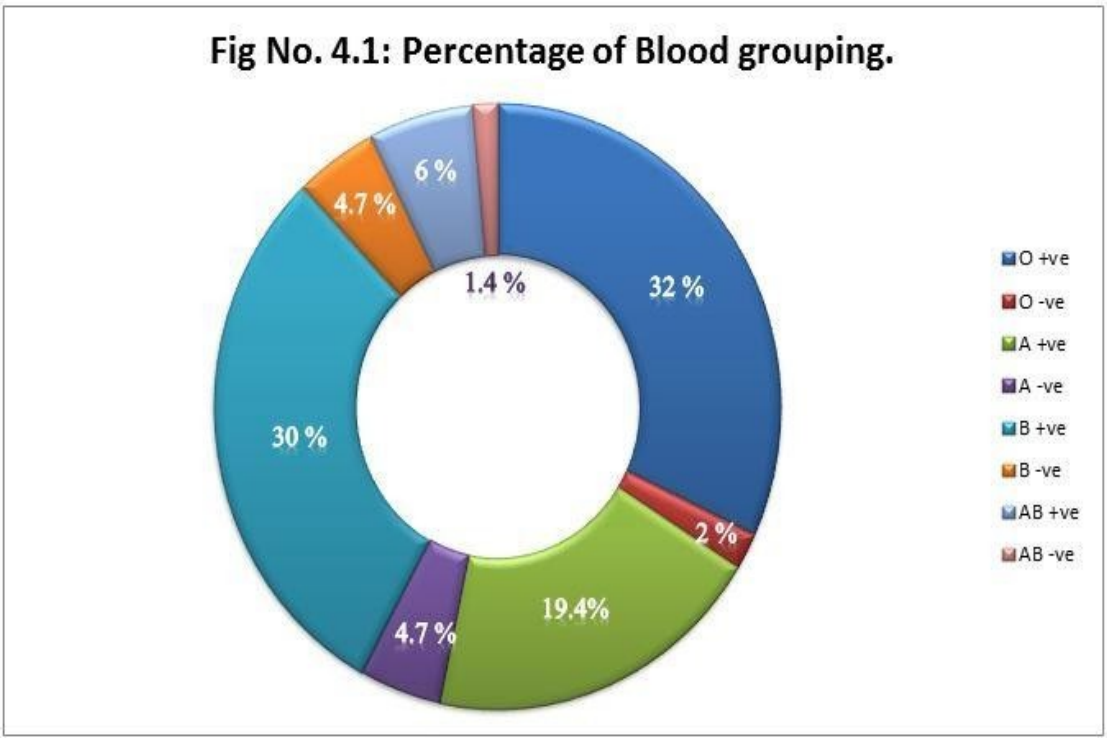
Table No.4: Distribution of Blood grouping in Different gender of student and pregnant women.

Sl.No.	Blood group	Males	Females	Pregnant women	Total	%
1.	O +ve	25	13	10	48	32
2.	O - ve	01	0	02	03	02
3.	A +ve	07	11	11	29	19.4
4.	A -ve	0	02	05	07	4.7
5.	B +ve	12	20	13	45	30
6.	B -ve	01	01	05	07	4.7
7.	AB +ve	04	03	02	9	06
8.	AB - ve	0	0	02	2	01.4

Total 150 sample in that O +ve blood group higher samples 25 in male than females samples 13 and PW samples 10, but in females B +ve blood group was higher samples 20 than male samples 12 and PW samples 13. In these data AB –ve blood group was lowest in males and female samples nil but in PW samples 2. In these data totally higher blood group is O +ve 48 (32%) samples than the AB –ve blood group 2 (1.4%) samples. In our study O –ve blood group (01) in male and A-ve blood group (02) in females very lower samples. These data was distributed in table no.4 and fig no.4 and 4.1.

Fig No. 4: Distribution of Blood grouping in Different gender of student and pregnancy women.





DISCUSSION:

Nutritional deficiency anemia was more prevelence in india, most of the women population were suffering with anemic disease in that younger girls were higher papulation[1]. In our study total 300 samples in that 150 samples were anemic patients out of that younger girls were suffering more with nutritional deficiancy anemia 28% were lesser population than Vitull, K. Gupta at al. but same younger girls were higher strength suffering with nutritional deficiency anemia. In same study males less affect with anemia than females[1], in our study males were very less anemic effect. Rajeev Kumar Yadav et al. says that 18-25 years aged females in Muslim religion were higher 67.7% in his study because lack of knowledge on cause of Anemia[3], but in our study in same age category female 35% in total subjects. Rajeev Kumar Yadav et al. were described about all trimesters of illiteracy Pregnant women regarding anemia prevalence were 76.7%[3]were lower than our study were 99.9% because of lack of knowledge on causing anemia and intake of diet.Nadia Hasswane et al. study says that<35 aged Pregnant women16% suffering with anemia[6] was lesser than our study. In our study 18 -20 aged 13% sever anemic lesser than 21-25 years younger age females 32% sever anemic subjects were opposite Gerardo Alvarez-Uria et al. study says that older women were sever anemic than younger women in 50% of females[7]. In our study 99.9% anemic rural pregnant women were higher than the Ramesh Chellan et al. study says96.9% anemic rural Pregnant women[8].JayantiRai et al. study data proved 'A' blood group subject 35.89% were higher than the 'O' blood group subject 34.91%, but O –ve and A –ve blood groups was nil in Buttai; 01, nil subject in Lepcha and 10, 06 subject in Nepal vice versa[9]but in our study O- ve 01 male subject and 02 female subjects were lesser than the Nepal subjects and higher than Buttai, Lepcha subjects. Total 'O' blood group subjects 34% higher than the 'A' blood group subjects in our study was opposite than Jayanti Rai et al.

CONCLUSION:

Nutritional deficiency anemia was common disease in developing country like India. In developing countries mostly lack of knowledge on nutritional intake and economical problem is leads to the nutritional deficiency anemic problem. In our study only taken younger and pregnant women in that most of the younger girls were suffering with nutritional deficiency anemia because in taking of less nutritional food, these concluded and highlighted by their Diet history. We are suspecting that latest trend in society was eating fast food and mentioning of body slimness without proper knowledge is leads to that lack of nutritional intake in younger girl's generation. Necessary to do research work on Etiological aspect of nutritional deficiency anemia in resent younger generation.

CONFLICT OF INTEREST:

We are interested to do work on anemia because of that so many of the younger population were suffering with pelar condition specifically in females. So many students in College they was very lean and very weak in looking, because of that we are started work on them to highlight epidemiological strength in anemic disease in college and we included some Pregnant women.

ABBREVIATIONS:

dl : Decilitre.
gr : Grams.
Hb : Haemoglobin.
PW : Pregnancy Women.
WHO : Word Health Organisation.

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Cite This Article:
Rama Devi et al., World Journal of Current,Med. Pharm. Research., Vol-1, Iss-4,101-106.

Conflict of Interest: Declared
ISSN: 2582-0222