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RESEARCH ARTICLE

TO STUDY THE PREVALENCE OF ANAEMIA IN INDOOR PATIENTS OF TERTIARY CARE CENTRE

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Key words:-

Anaemia, Indoor Patients, Prevalence

Abstract

Introduction: Anaemia is a global health problem, prevalent among the individuals of all age groups. It has great impact on the mental as well as physical growth and development.

Material And Method: The present study is prospective in nature conducted in the Post graduate department of Pathology, GMC Jammu which included 1600 indoor patients. History, physical examination and primary blood investigation were done in all the cases.

Results: Moderate anaemia was prevalent in female patients. Majority of the female patients were in the age group of 61-70 years. Mild anaemia was prevalent in male patients and 51-60 years was the most common age group.

Conclusion: Study of anaemia is important to reach the underlying etiological factor in order to direct the early management of anaemia.

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Introduction:-

Anaemia is a major health issue, seen worldwide. It contributes to the major health problem. The WHO definition of anaemia is a hemoglobin (Hb) concentration less than 13g/dl in males and less than 12g/dl in females¹. In India, the prevalence rates are as high as 70% and the efforts to tackle with the problem remain futile². The greatest impact of anaemia is on the development of the country as the physical as well as mental growth and development of the individual is affected by it. According to the WHO anaemia is the qualitative and or quantitative diminution of Hb or RBC or both in respect to the age and sex of the individual and as per Robbins anaemia is defined as the reduction of the total circulating red cell mass below normal limits³. Nutritionally, iron deficiency is the main cause of anaemia throughout the world especially in the women of reproductive age group. Iron deficiency anaemia (IDA) is an end stage of negative iron balance. It is preceded by a stage of latent iron deficiency where serum ferritin is below 15.0ng/ml with normal Hb level⁴. IDA is widely prevalent especially amongst women in India⁵. Factors like lack of diet, unhygienic habits, worm infestation, poor socio economic status, less education, faulty dietary habits, loss of appetite, social taboos contribute to the prevalence of anaemia. Anaemia has great impact on fetal development which inturn is influenced by the maternal nutrition. Maternal iron deficiency is associated with inadequate weight gain, anaemia, retarded fetal growth, low birth weight, still births, preterm delivery, intra uterine growth retardation, morbidity and mortality rates. Despite of different program taken by the government for primary and primordial prevention of among vulnerable groups, the prevalence of anaemia is still on rise. Early diagnosis and prevention of anaemia helps to reduce the mortality and morbidity related to anaemia.

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Material and Method:-

The present study is prospective in nature conducted in the department of Pathology, Government Medical College, Jammu after obtaining due clearance from institutional ethical committee. The study was conducted on indoor patients who visited the hospital over a period of 6 months from January 2020 to July 2020. The female patients with Hb <12g/dl and male patients with Hb <13g/dl were included in the study.

The clinical record of all the patients fitting into the eligibility criteria was obtained and analysis of each patient's clinical profile was made. A detailed clinical history regarding the nature and duration of illness, loss of weight and any history of drug intake or blood transfusion in past was taken. Detailed drug history was followed by general physical and systemic examination.

Results:-

The present study was prospective in nature. Among 1600 patients, 780 were males and 820 were females (Table 1).

Table 2 shows that maximum number of male patients were in the age group of 51-60 years(23.46%) followed by the age of more than 80 years whereas female patients were maximum in the age of 61-70 years followed by the age of more than 80 years.

Majority of the male patients (43.33%) had mild anaemia i.e. Hb >10 <13g/dl (Table 3) that too in the age group of 51-60 years followed by 61-70 years.

Table 4 shows that anaemia was moderate in majority of the female patients (53.29%) followed by severe anaemia with Hb <6.9g/dl.

Discussion:-

In our study, majority of the patients were female patients. Our results were in agreement with the study by Agarwal and Agarwal, Malhotra et al.

In the present study, majority of the female patients (19.02%) were in the age group of 61-70 years. The results were similar with other studies^{6, 7}.

The present study showed that the majority of the male patients were in the age group of 51-60 years. The findings were different from the study by Madhusnata et al.

In our study, 339 male patients had moderate anaemia i.e. Hb in the range of 7-10g/dl followed by mild anaemia in 296 patients. The findings were in accordance with the study by Agarwal and Agarwal. The study by Chattopadhyay and Adhya also showed the similar results. However the results were not consistent with study by Naveen K.

Conclusion:-

From the present study it is concluded that prevalence of anaemia is high especially in the females of reproductive age group as well as in elderly. Also in view of increased prevalence of anaemia in our country, there is a need to find a cost effective method for early diagnosis and management of anaemia to reduce the mortalities and morbidities related to anaemia. Peripheral blood smear and basic blood parameters being cost effective methods contribute towards the early diagnosis of the anaemia.

Table 1:- Age wise distribution of anaemia.

Sex	No. of cases	Percentage (%)
Male	780	48.75
Female	820	51.25
Total	1600	100.00

Table 2:- Age wise distribution of anaemia.

Age (in years)	Male	Female
<18	19	09
18-30	34	76

31-40	56	94
41-50	77	101
51-60	183	123
61-70	131	156
71-80	127	118
>80	153	143
Total	780	820

Table 3:- Hb in male patients.

Age (in years)	Hemoglobin (g/dl)			Total
	≤6.9	7-10	<10 >13	
<18	03	09	07	19
18-30	02	20	12	34
31-40	05	25	26	56
41-50	07	39	31	77
51-60	44	72	67	183
61-70	32	45	54	131
71-80	27	46	54	127
>80	36	60	57	153
Total	156	316	308	780

Table 4:- Hb in female patients.

Age (in years)	Haemoglobin (g/dl)			Total
	≤6.9	7-10	>10 <13	
<18	03	04	02	09
18-30	09	56	11	76
31-40	30	40	24	94
41-50	25	50	26	101
51-60	27	82	14	123
61-70	38	85	33	156
71-80	44	47	27	118
>80	51	73	19	143
Total	227	437	156	820

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