RESEARCH ARTICLE

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

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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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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 studies⁶,⁷.

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     |

600
### Table 3: Hb in male patients.

| Age (in years) | ≤6.9 | 7-10 | <10 | >13 | Total |
|----------------|------|------|-----|-----|------|
| <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) | ≤6.9 | 7-10 | >10 | <13 | Total |
|----------------|------|------|-----|-----|------|
| <18            | 03   | 04   | 02  | 11  | 76   |
| 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  |

### References:

1. Kulkarni NS, Patil AS and Karchi SD. Study of Pancytopenia in a Tertiary Care Hospital in North Karnataka. Int J Med Res Health Sci 2017, 6(3): 61-67.
2. Prakash A, Kumar A, Awasthi S, Dutta S, Mittal A. Clinicopathological Pattern of Anemia in Children in Age Group Upto 18 Year. Int J Med Res Prof. 2018 Jan; 4(1): 262-65.
3. Chattopadhyay D, Adhya S. Prevalence of Anaemia among OPD Patients of a Tertiary Care Hospital of Eastern India. Journal of Dental and Medical Sciences 2013 Sep.- Oct; 10(6): 01-03.
4. Mehta BC. Iron deficiency anemia. In API Textbook of Medicine, 7th Ed, editor Shah SN. Association of Physicians of India, Mumbai 2003.930-4.
5. Mehta BC. Iron deficiency amongst nursing students. Indian J Med Sci 2004 Sep; 58(9): 389-92.
6. Agrawal P. Agrawal S. The Prevalence and Incidence of the Anaemia in Indoor Patients of Central India, Chhattisgarh State. JMSCR 2019 Jan; 7(1): 108-112.
7. Malhotra P, Kumari S, Kumar R, Varma S. Prevalence of anemia in adult rural population of north India. JAPI 2004 Jan; 52: 18-20.
8. Madhusnatha D, Halder A, Chakraborty T. Incidence of anaemia and effect of nutritional supplementation on women in rural and tribal population of eastern and north-eastern India. Hematology 2011; 16(3): 190-192.