

## A STUDY TO FINDOUT THE CLINICAL PROFILE OF MEGALOBLASTIC ANEMIA IN GWALIOR REGION

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### Abstract:

Megaloblastic anemia is very common in society and this entity have multiple presentations. In the low resource countries like India it is very difficult to reach on exact cause of the disease. So clinical features is the best available method to diagnose and treat the patients of the megaloblastic anemia. This study was done at a tertiary care centre of north India. Total of 100 randomly selected patients of anemia were studied and 18% were megaloblastic anemia. Most common sign was pallor followed by glossitis.

**Key words:** Anemia, megaloblastic anemia.

### Introduction

In a developing country like India the anemia of a megaloblastic picture also known as megaloblastic anemia is common. This diseases have many presentations, and in the low resource countries like ours, this study will help to findout the characteristics of the disease on the basis of clinical ground. Morphology of RBC like a megaloblast which is a sign of disease is due to the deficiency of vitamin B12 and folic acid (many underlying causes), leads to production of the DNA which is impaired.<sup>1,2</sup>

This study was done in a tertiary care centre of north India, GRMC Gwalior, to find out the clinical profile of the megaloblastic anemia.

### Materials and methods

A observational study which was

retrospective was done on patients who have confirmatory laboratory results of anemia, in the department of physiology with collaboration of department of pathology, grmc Gwalior M.P.

Total of 100 patients were randomly selected who have anemic blood picture during period of 90 days (from Oct. 17 to Dec. 17). all patients of age 15 or more, have no concurrent, liver disease, renal pathology or malignancy. A full blood count, peripheral blood smear examination and bone marrow examination with wright and iron stain was done .

Data was collected on a proforma and later was analysed with the help of statitian and a software SPSS VS 16.

### Results

BMA was done on 100 randomly selected patients of anemia.

In the analysis 18 (18%) bone marrow findings were consistent with megaloblastic anemia. Regarding clinical presentation; pallor 17 (94.44%) followed by glossitis 9 (50%) and Jaundice 7 (38.88%), paresthesia 3 (16.66%), pigmentation 3 (16.66%), and ataxia & confusion each 2

case each (11.11%). Other features like weakness, SOB and palpitations, weight loss were present in 66.66% cases.

Mean age of the patients was 38.5 years, range from 16 years to 62 years, male /female ratio 1:1.

**Table 1.**  
**Clinical data of Megaloblastic anemia**

S.N.	Age/sex	Pallor	Glossitis	Jaundice	Pigmentation	Paresthetia	Ataxia	Confusion	Others*
1	32/m	+	-	+	-	-	-	-	+
2	62/f	+	-	-	+	-	-	-	+
3	16/f	+	+	+	-	-	-	-	-
4	58/m	+	+	+	-	-	-	-	-
5	22/m	-	+	-	+	-	-	-	+
6	17/f	+	+	-	-	-	-	+	+
7	57/m	+	+	-	-	-	-	-	+
8	26/m	+	-	-	-	-	+	-	+
9	19/f	+	-	+	-	+	-	-	+
10	45/f	+	-	-	-	-	-	-	-
11	62/m	+	-	-	-	-	-	-	-
12	52/m	+	+	-	-	+	-	-	-
13	32/f	+	+	+	+	-	+	-	+
14	49/f	+	-	+	-	-	-	+	+
15	58/m	+	-	+	-	-	-	-	+
16	31/f	+	-	-	-	-	-	-	-
17	39/m	+	+	-	-	-	-	-	-
18	16/f	+	+	-	-	-	-	-	+

\*weakness, shorness of breath, palpitation, weight loss.

**Table 2.**  
**Clinical profiles of Megaloblastic Anemia**

Clinical features	Number (total 18)	Percentage
Pallor	17	94.44
Glossitis	9	50
Jaundice	7	38.88
Pigmentation	3	16.66
Paresthesia	3	16.66
Ataxia	2	11.11
Confusion	2	11.11
Others*	12	66.66

\*weakness, shorness of breath, palpitation, weight loss.

## Discussion

Megaloblastic anemia is a result of vitamin B12 or folic acid deficiency. This leads to failure of the normal process of the rbc maturation and immature RBCs circulates in the blood.<sup>3</sup> In our study common symptoms were weakness, fatigue, exertional dysnoea, palpitation, dizziness, and body pains and these correlate with previous study<sup>4</sup> Most common sign was pallor, presents in 94.44% of patients, followed by the glossitis. This finding was in comparable to previous study<sup>5</sup> Nearly 16.66% of the patient had paresthetia, this

finding is not comparable with previous study<sup>6</sup> Serum Vitamin B12 and RBC folate level were not done in view limited resources available and financial constraint. A better study with more sample size on multicentric basis is recommended to validate the finding of the study.

## Conclusions

Megaloblastic anemia is common in our centre. This study with summary of clinical feature being mentioned as above

will definitely help clinician for the diagnosis and treatment of megaloblastic anemia.

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