



## ▼ POST GRADUATES ABSTRACTS

### PG - 43: MORPHOLOGICAL SPECTRUM OF ANAEMIAS AND RED CELL INDICES IN PATIENTS OF A TERTIARY CARE CENTRE

Venkat Raghavan A.T.M., Final year post graduate, *Department of Pathology*

Mahatma Gandhi Medical College & Research Institute, SBV, Pondicherry

**Introduction:** Anaemia is one of the preventable diseases worldwide, especially in countries like India. Iron deficiency is the most common cause of Anaemia. Age, sex, geographical and comorbid factors play important roles in the morphological patterns of anaemia. Anaemia, if undetected can cause morbidity and mortality, which can be prevented.

**Aims and objectives:** To study the morphological patterns of Anaemia in patients of all age groups

and correlate the findings of automatic hemoanalyser, peripheral smear and biochemical parameters like Iron studies, vitamin B 12 and folic acid. To find the distribution of Anaemia on the basis of age, sex and morphological type and to find out the commonest pattern.

**Materials and methods:** The study comprised of 300 Anaemic patients over a period from December 2015 to July 2017 in Mahatma Gandhi Medical College and

Research Institute, Pondicherry. **Results:** Out of 300 cases, majority were adults and female predominance was seen and majority (68.3%) showed severe degree of Anaemia. Microcytic Hypochromic Anaemia was the commonest in all age groups (66%). All the Microcytic Hypochromic Anaemic cases showed reduced levels of serum Iron, ferritin and increased levels of TIBC. Among 23% patients with Dimorphic Anaemia, 76.4% patients showed reduced levels of serum Iron and ferritin with increased TIBC, 7.3% showed reduced levels of vitamin B 12, 10.2% showed reduced folate levels and 5.8% showed normal levels of vitamin B 12 and folic acid. Among 8% patients with Macrocytic Anaemia, 80% patients had both vitamin B12 and folate deficiency, 12% had folate deficiency alone and 8% patients showed normal vitamin B 12 and folate

levels. Normocytic Normochromic Anaemia accounted to 3%, out of which 5 cases showed reticulocytosis, indicating Hemolytic Anaemia. **Conclusion:** In our study, Microcytic Hypochromic Anaemia was the most common morphological type of Anaemia and all were Iron deficiency Anaemia. Thus, Complete blood count, Peripheral smear study and biochemical studies proved to be definitive in diagnosis of Anaemia. Thus facilitating the further management of patients suffering from Anaemia. This holistic approach towards diagnosis of Anaemia will reduce the morbidity and mortality associated with it.

**Keywords:** Anaemia, Microcytic Hypochromic Anaemia, vitamin B 12.