

# Summary and Conclusion

## **SUMMARY AND CONCLUSION**

Anaemia means lack of blood. It is derived from the Greek: An = Lack and Haima = blood, this condition is very common in various branches of medical and surgical practices.

The basic pathophysiologic definition of anaemia is tissue hypoxia as a consequence of low oxygen carrying capacity of the blood. In the laboratory, anaemia is defined as hemoglobin concentration below the lower limit of the 95% reference level for age, sex and geographic altitude, therefore by definition, 2.5% of all persons are classified as anaemic.

Three major schemes for classification of anaemia are available: Pathophysiologic classification; classification by mean corpuscular volume (MCV) and red cell distribution width (RDW); and morphologic classification.

Iron deficiency anaemia is one of the most common deficiency disease in children in developed countries. It affects particularly those living in poor socioeconomic circumstances, and children of immigrant communities.

Prolonged breast feeding and early introduction of cow's milk are associated with anaemia, and the continued use of formula milk protects against anaemia.

Many studies suggested that exclusive breast feeding is sufficient to maintain adequate iron nutrient for most, if not all, of the first year of life. Also, breast milk

proved to be superior to cow's milk in regard to hematologic values. The difference between infants fed breast milk and those fed cow's milk is most likely due to higher bioavailability of breast milk iron. The reason for high bioavailability of human milk iron are not known.

The aim of this work is to study the effect of type of feeding on hemostat of infants at early life. This work has been carried out on hundred child under two years old. Fifty child were on pure breast fed and the other fifty were on artificially fed. All the cases studied were subjected to full history taking including complete family history and type of feeding, full clinical examination and laboratory investigation including Hb%, Hct, Bl. viscosity, SI and TIBC.

The results of the present study are shown clearly in tables 1-12 and from figures 1-10. There is significant difference regrading all the laboratory investigation except for hemoglobin concentration between the breast fed group and artificially fed group. All the parameters are higher in the breast fed group.

Also, all the parameters decrease with age except for total iron binding capacity. The relatively low values of serum iron and total iron binding capacity represent normal development changes rather than indicate iron deficiency.

The results of the present study agree with many previous studies and this may be explained by young age of the breast fed group (the majority under 9 months) and type of feeding given to the artificially fed group (the majority received cow's milk). Also, the majority of the children under study received no iron supplement.

## **CONCLUSION**

- 1- Breast milk is superior to cow's milk as regarding iron status in children in early life.
- 2- Breast feeding can maintain optimal iron status up to 9 months.
- 3- Iron supplement is recommended for children more than 9 months.
- 4- Children received cow's milk must be given iron supplement to maintain optimal iron status.
- 5- The relatively low values of serum iron and total iron binding capacity represent normal developmental changes rather than indicate iron deficiency.