ROLE OF RBC PARAMETERS IN DISCRIMINATING BETWEEN IRON DEFICIENCY ANAEMIA AND ANAEMIA OF CHRONIC DISEASES

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Introduction: In the present study, we evaluated and compared RBC parameters, iron status and ferritin for discriminating between patients with iron deficiency anaemia and anaemia of chronic disease. Anaemia that accompanies infection, inflammation, and cancer, commonly termed anaemia of chronic disease (ACD).

Methods: We compared the ability of serum ferritin concentration, using the microplate immunoenzymometric assay method with other, more traditional indicators of iron status like total iron binding capacity [TIBC], mean corpuscular volume [MCV], percent transferrin saturation [%TS], RBC distribution width [RDW], and serum iron concentration [SIC]. The ferritin concentration was determined in 80 serum samples selected from men and women above the age of 18 years. The patients were assigned to IDA and ACD group based on serum ferritin concentration.

Observation: By studying the ROC curve for various red cell parameters for the diagnosis for IDA and ACD, we found that diagnostic accuracy of various indicators were as follow TIBC>TS%>MCV>MCH>SI>MCHC for anaemia of chronic diseases, and TIBC>MCH>MCV>MCHC>TS%>SI for iron deficiency anaemia. When both the ROC curve was compared, it is apparent that TIBC, TS%, MCV and MCH are important discriminating factor between IDA and ACD.

Conclusion: Conventional laboratory parameters play important role in distinguishing overt cause of IDA and ACD. MCV, MCH and TIBC were found to be (p value<.05) significantly discriminated IDA and ACD. Serum ferritin is an important diagnostic tool with reasonable accuracy for detection and differentiation of iron deficiency anaemia and anaemia of chronic diseases.

Biography

" Dr.Reena Bhaisare is a Pathologist" "has been "worked as a Consultant Pathologist since 2016,"in various heath sectors. Recently working in Sengupta Hospital and Research Institute and Janta Maternity Trust Hospital in Nagpur Maharashtra . She completed Diplomate of National board residentship (Year2016) from Jawaharlal Nahru Hospital and Research Centre Bhiali,Chattisgarh and Deploma in Clinical Pathology(Year2012) from Gajra Raje Medical Collage,Gawalior after completed MBBS from same collage in year (Year2010).She has research worked on "Role of RBC Parameters in Study of Funtional Iron Deficiency and Anemia of Chronic Diseases. She pursued additional certificate of training course in Surgical Pathology from TATA Memorial Hospital,Mumbai.She also has engross with professional organizations like CUROFY and get certificate of appreciation for bring the Top Hematologist. She also attends various National and Intenational conferences and delivered oral paper presentations.

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