Objective: The aim of this study to give simple guide to primary care physician to know the common type of anemias from Hematological indices of low hemoglobin, low MCV, RBC count index above or below 5 million and Mentizer index above 13 or below 13.

Method: 76 female ages between 18-36 years with low Hemoglobin [below 10 gm/dl] and MCV below 65Fi were studied prospectively. RBC count and Mentzer index, which is the ratio of MCV/RBC count 13 or below, were taken as hematological indices for assessment the type of anemia. Three types of anemia have been studied, Iron deficiency anemia, Thalassemia trait and chronic anemia.

Results: 48 patients [63.2%] were found to have iron deficiency anemia and all of them with Mentzer index above 13 and RBC count less than 5 million/cmm. While 10 patients [13.2%] were found to have beta Thalassemia minor and all of them with Mentzer index less than 13 and RBC count more than 5 million/cmm. The remaining 18 patients [23.7%] were found to have chronic anemia with variable Mentzer index and RBC count. WBC and platelet count were normal in all type of anemia.

Conclusion: The hematological markers of low MCV, RBC count above 5 million or below 5 million /cmm and Mentzer index above 13 or below 13 can be used as a guide to primary care physician to know what is the most likely type of anemia especially in area where there is limitation in doing further investigations and avoid giving unnecessary medications. Iron deficiency anemia patients have high Mentzer index and low RBC count while all Thalassemia trait patients have low Mentzer index and high RBC count. Our study was revealed also that majority of anemia with low MCV is iron deficiency anemia.