

SUMMARY

β -thalassemia is one of the most widely prevalence diseases about 1.5 of the world-wide .It is a single-gene disorder that autosomally inherited .It affect considerable proportion of population including Iraqies .The disease is resulted from a decreased or absent synthesis of β -globin chains that normally constitute a part of the adult hemoglobin (HbA; $\alpha_2\beta_2$). Ineffective erythropoiesis, severe anemia, increase iron absorption and increased erythrocytes turnover are the major clinical and hematological manifestation of this disease.

The present study has carried-out in an endeavor to assess the immunologic status regarding hepatitis infection as the patients at high risk of picking-up the virus during multiple blood transfusion .In addition, the presence of two mutations thought to encompass the etiology and pathology of the disease ;IVS1-110 and CD39 have also been sought out.

The ELISA is used to evaluated the load of Hepatitis B surface-Antigen, Hepatitis C virus and Hepatitis B surface antigen antibody. The real time-PCR is used to truce the mutations of the genes. Sixty two thalassemic patients who were regularly attending maternity and children teaching hospital in AL Diwaniya ,(30) who were apparently healthy, all have enrolled for serological and genetic investigation during the period (January 2013- March 2013).

The ABO grouping of patients (43 male and 19 females with age range of 2-40 years old) revealed that a high(33.9%) proportion of our patients belong to B blood group . The serum ferritin is shown to be increased as the age of the patients being older.

A 36(58.1%) of thalassemic patients were harbored with IVS1-110 mutation, 26(41.9%) of them were positive of CD39,13(21%) were

harbored both mutations and 10(16%) provided negatives for either mutations.

Only one case has given positiveness for HBsAg test , while (2) of the patients showed positive test for HCV .Moreover,4(6.5%) patients have had no HBs-Ab in their serum and at high risk of contract infection . The titer of these antibodies has shown to be negatively correlated with number of blood transfusions .A regular screening for Hepatitis immunologic status is recommended and tracing of other mutation among such patients as well.