SUMMARY AND CONCLUSION

Beta thalassemia major is a chronic hemolytic anemia. Children usually presented with pallor, loss of appetite, failure to thrive and hepatosplenomegaly. Repeated blood transfusions are the basis of therapy to prevent anemia. Severe iron overload develops progressively in patients with transfusion dependant homozygous β thalassemia. Therefore iron chelating agent is given in the form of subcutaneous infusion of desferrioxamine.

This study was carried out to detect complication of β thalassemia major as growth and puberty retardation as well as hearing and visual problems and their relation to compliance to therapy and how IQ, psychological status and school performance of these children affected by these complications.

Sixty thalassemic children with age ranged from 9-18 year of both sexes classified into 2 groups each consisting of 30 patients and 20 normal school children as control group.

The 1st group were receiving desferrioxamin regularly in a dose of 20: 50 mg/kg/day and the 2nd group do not receive the drug or receive it irregularly.

Patients were subjected to full history taking and medical examination and have growth and puberty assessment, audiological

evaluation via pure tone audiometry, visual field and fundus examination and measuring and also have IQ assessment, measuring depression scale and school performance evaluation.

Serum ferritin and complete blood picture were done to all patients of the 2 groups.

The results of this study can be summarized as follow:

Regarding anthropometric results.

- 33.3% of group (1) and 83.3 of group (2) have short stature.
- 30% and 43.3% have weight below 3rd centile of both groups respectively.
- Two cases in group (1) and one case in group (2) have BMI below 3rd centile.
- Delayed puberty was found in 43.3 of group (1) while was present in 80% of patients in group (2).
- According to the audiological tests 36.6% of group (1) have HFSN hearing loss with normal pure tone audiometry in group (2).
- Visual assessment testes revealed that 12 patients have bilateral prephral field defects and 8 patients have subnormal acuity and one patient have mild optic cupping in group (1) with nearly normal visual testes in group (2).
- IQ was subnormal in 5% ,13.3and 40% respectively in the three groups.
- Depression was more obvious among thalassemic children than control group.

- Poor school performance was more in thalassemic children than control normal children as 20% and 63.3% of both thalassemic groups had poor school performance in comparison to 5% in control group .**We conclude the following:**

1- Patients with β thalassemia major receiving regular blood transfusion without chelation therapy are more prone to puberty and growth retardation also have more depression and subnormal IQ and poor school performance.

2- Patients with regular chelation therapy with desferrioxamine have more hearing and visual problems.

3- Depression is more obvious among thalassemic group than control one that need early interference and psychotherapy.

4- Follow up of thalassemic children as regard hearing, visual examination every 6 months. Also growth, puberty assessment in thalassemic children is essential in management of the disease.

5- Thalassemia is a chronic disease has may different issues other than the medical point of view that must be taken in consideration during management of the disease like the psychological status and school achievement.