INTRODUCTION

• B-thalassaemia is a hereditary chronic haemolytic anemia characterized by a defect in the synthesis of beta-globin chains, particularly common in the Mediterranean region, southern Asia, and the Middle East.

• Transfusion programs and chelation therapy have greatly extended the life expectancy of patients. This has led to an increase in the prevalence of endocrine complications, linked to iron overload.

• The hypothyroidism is one of the most commonly reported complications in patients with polytransfused beta thalassemia.

• Thyroid dysfunction is directly linked to the degree of iron overload.

AIM

• Main: Describe the frequency of hypothyroidism in patients with polytransfused β-thalassemia.

• Secondary: Study the linking between hypothyroidism and:
  o Feritinemia rate
  o Average transfusion volume (VTA)
  o Duration of transfusion therapy.
  o Spleanectomy,
  o Compliance with chelating therapy.

RESULTS

• Primary hypothyroidism is present in 16 (18.4%) patients, this hypothyroidism is subclinical in 12 (13.8%) patients and obvious in 4 (4.6%) patients.

• The average age of patients with hypothyroidism was 12 ± 3.1 years (12, VS 11): (p=0.54).

• Hypothyroidism was observed in 11 boys and 05 girls. No gender predominance (p = 0.055).

• Hypothyroidism was asymptomatic in all β-thalassemia patients at the time of diagnosis, no patient had goiter, and no central hypothyroidism was observed.

• There is a significant correlation between hypothyroidism and feritinemia level in our study (p<0.001).

• A positive correlation was found between TSH and serum ferritin (p = 0.002) but not with FTA (p = 0.13).

• A significant correlation was found between VTA and hypothyroidism : (p = 0.016).

• After logistic regression, only feritinemia was retained as a prognostic factor for hypothyroidism: (ORa = 6.1, P = 0.003 for a feritinemia threshold of 2500 µg / l).

• Compliance with chelating therapy was retained as a significant parameter in reducing the frequency of hypothyroidism.

CONCLUSIONS

• Hypothyroidism in thalassemia develops as a result of siderosis of thyroid cells, usually seen in the second decade of life.

• An annual assessment of thyroid function is recommended in polytransfused β-thalassemic patients from the age of 10 years.

• Recognizing and treating hypothyroidism early in thalassemia help improve the quality of life for those patients.

REFERENCES