β-thalassemia intermedia (β-TI) is a term that describes patients with a milder form of anemia than patients with β-thalassemia major. Ineffective erythropoiesis, chronic hemolytic anemia, and iron overload are the main factors responsible for the disease process. Prognosis in patients with β-TI. Chronic anemia may have such adverse effects, such as increased in gastrointestinal iron absorption and iron overload, which can cause endocrine abnormalities, diabetes mellitus, osteoporosis, hypothyroidism, and hypogonadism. Iron chelation therapy, splenectomy, transfusion therapy, and modulation of fetal hemoglobin (HbF) production are several available options for managing patients with β-TI.

Pharmacological agents that increase γ-globin production, like Hydroxyurea (HU), as evidenced by an increased in HbF levels, have been considered as therapeutic agents for patients with β-thalassemia TI. Increasing the synthesis of fetal hemoglobin (HbF) can help reduce anemia and thereby improve the clinical condition of patients with β-TI. In several patients with β-TI and in patients with sickle-cell disease, an increase in total HbF level have been repeatedly reported during HU treatment in several patients with β-TI and in patients with sickle-cell disease. HU treatment can reduce blood transfusion dependency and even make some patients transfusion free, increasing which in turn increases their energy state level and decreasing decreases splenomegaly. HU treatment also is protective for against hypothyroidism, pulmonary hypertension, extramedullary hematopoiesis, leg ulcers, and osteoporosis. The commonest most common side effects of HU treatment include neutropenia and thrombocytopenia, both of which these are predictable and easily manageable. In the few studies conducted on the side effects of HU treatment in β-TI patients with β-TI, dermatological, neurological, and gastrointestinal adverse effects were observed without any reports of endocrine abnormality, bone marrow suppression, or hematological toxicity. In the present study, we aimed to perform medium- to long-term follow-up of chronic low-dose HU treatment was...
inspected in order to analyze the its effect of HU treatment on the thyroid function of patients with β-TI.