

Successful Pregnancy Outcomes with Thyroxine Treatment in Euthyroid Women with Positive Thyroid Autoantibodies and Recurrent Miscarriage

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Introduction

Thyroid Autoimmunity with biochemical abnormalities in pregnancy is associated with adverse obstetric outcome if left untreated. The presence of elevated autoantibodies (Thyroid Peroxidase Antibody) in euthyroid patients is also associated with an increased risk of miscarriage and pre-term delivery¹⁻³. The role of thyroxine supplementation in such patients remains controversial.

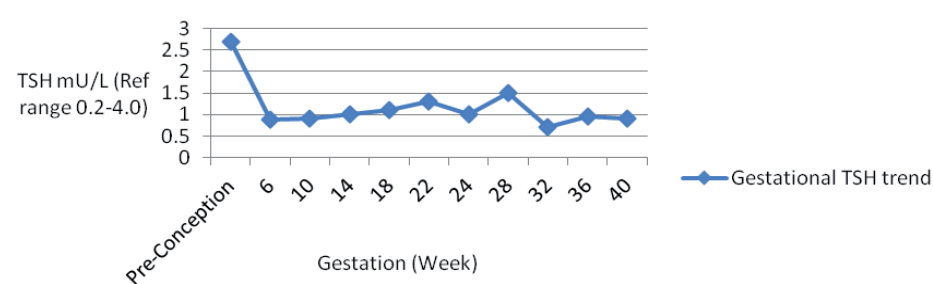
We present two thyroid antibody positive euthyroid women with history of recurrent miscarriage who had successful pregnancy outcome when treated with levothyroxine.

Case 1

A 31 year old Caucasian lady was referred to our endocrine services with a history of three previous miscarriages. She had strongly positive thyroid peroxidase antibodies (TPO) with normal thyroid function tests.

We commenced her on 25mcg of levothyroxine. Within two months, she conceived and the dose was increased to 50mcg daily. She remained on this dose throughout her pregnancy. Thyroid functions were monitored every 6-8 weeks and had remained normal.

Gestational TSH trend



Case 2

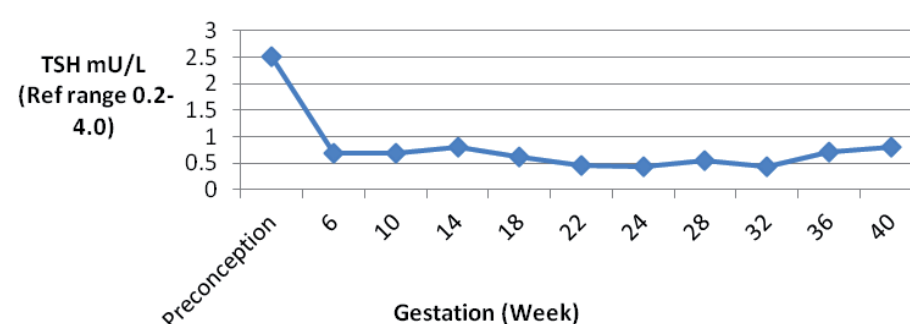
A 28 year old Caucasian lady was referred pre-conception with a history of two previous miscarriages. She had normal thyroid function with strongly positive TPO antibodies and family history of primary hypothyroidism.

She commenced 50mcg of levothyroxine and conceived six weeks later. She remained on the same dose throughout her pregnancy and her thyroid functions were also monitored every 6-8 weeks.

Both ladies had uneventful pregnancies and delivered successfully at 40 weeks gestation. We aimed for thyroid stimulating hormone (TSH) of 1mU/L.

Levothyroxine was stopped after delivery and thyroid functions remained normal 6 weeks later.

Gestational TSH trend



Discussion

There is a strong association between thyroid antibodies and pregnancy loss. Intervention trials with levothyroxine in thyroid antibody positive euthyroid women with recurrent miscarriage are quite limited but have shown a decrease in the miscarriage rate¹. Other studies have shown no difference in pregnancy outcome⁴. The data however is insufficient to recommend for or against routine levothyroxine therapy in thyroid antibody positive euthyroid women during pregnancy.

Such patients are at an increased life time risk of developing primary hypothyroidism and require at least annual monitoring of thyroid function tests and again if they plan to conceive to ensure euthyroidism. Management of these patients and the successful outcomes with levothyroxine treatment adds to the limited evidence in this area.

References

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