



THYROID AND PREGNANCY

How much levothyroxine should be started for hypothyroidism diagnosed during pregnancy?

BACKGROUND

Thyroid hormone in the baby is essential during pregnancy for normal brain development. Normal thyroid function in the mother is important during pregnancy to prevent complications during delivery and the postpartum period. In the first trimester, the baby gets its thyroid hormone from the mother. Hypothyroidism, or an underactive thyroid, is a common medical condition that occurs more often in women. During pregnancy, hypothyroidism is generally treated aggressively, with the idea to normalize thyroid levels as soon as possible. This study was done to assess how much thyroid hormone, in the form of levothyroxine, should be given to women who are diagnosed with hypothyroidism during pregnancy.

THE FULL ARTICLE TITLE

Abalovich M et al Adequate levothyroxine doses for the treatment of hypothyroidism newly discovered during pregnancy. *Thyroid* 2013;23:1479-83. Epub September 20, 2013.

SUMMARY OF THE STUDY

This was a study of 77 women in Argentina with hypothyroidism diagnosed during pregnancy. All women were started on levothyroxine treatment immediately after hypothyroidism was diagnosed. Women were followed by thyroid stimulating hormone (TSH) blood tests to

confirm the effectiveness of levothyroxine treatment. The TSH goals were less than 2.5 mIU/L in the first trimester and less than 3 mIU/L in the second and third trimesters. The authors show that women with milder forms of hypothyroidism require less levothyroxine. Overall, the dose of levothyroxine is weight-based, and women required starting doses ranging from 1.20-2.33 mcg/kg/day during pregnancy, depending on the severity of hypothyroidism.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This is an important study as it provides recommendations for the selection of an initial levothyroxine dose in women with hypothyroidism diagnosed during pregnancy. This guidance is important in decreasing the risks of untreated hypothyroidism, which during pregnancy can result in poor outcomes to the mother and baby. It is suggested that levothyroxine be monitored with a TSH blood test 2-4 weeks after starting the medication.

— Angela M. Leung, MD

ATA THYROID BROCHURE LINKS

Thyroid and Pregnancy: <http://www.thyroid.org/thyroid-disease-and-pregnancy>

Thyroid Hormone Treatment: <http://www.thyroid.org/thyroid-hormone-treatment>

ABBREVIATIONS & DEFINITIONS

Hypothyroidism: a condition where the thyroid gland is underactive and doesn't produce enough thyroid hormone. Treatment requires taking thyroid hormone pills.

Thyroid hormone therapy: patients with hypothyroidism are most often treated with Levothyroxine in order to return their thyroid hormone levels to normal. Replacement therapy means the goal is a TSH in the normal range and is the usual

therapy. Suppressive therapy means that the goal is a TSH below the normal range and is used in thyroid cancer patients to prevent growth of any remaining cancer cells.

TSH: thyroid stimulating hormone – produced by the pituitary gland that regulates thyroid function; also the best screening test to determine if the thyroid is functioning normally.