

Thyroid Function Control among Pregnant Women Following a Therapeutic Thyroidectomy

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Abstract

Background: The total number of thyroidectomies performed worldwide both for benign and malignant disease has increased dramatically during the past few decades. Gestational hypothyroidism has deleterious effects on the fetus. Objective: The aim of this study was to assess the extent of thyroid function control among pregnant women who had previously undergone a therapeutic thyroidectomy. Methods: This retrospective cohort study included all female patients insured in the largest health maintenance organization in Israel who were pregnant between May, 2001 and September, 2012 and had a medical history of thyroid surgery. The thyroid-stimulating hormone (TSH) levels throughout the pregnancy were compared to recommended trimestral values. A multivariate analysis was performed to determine risk factors for not attaining TSH recommended range. Results: A total of 477 females with a history of thyroid surgery had given 701 births during the study period. Forty-three percent (n= 203), had thyroidal malignancy. Nearly half of the women underwent total thyroidectomy (43.4% n=207). The women's TSH values were within the recommended range in only 60% (n= 350) of the pregnancies during the first trimester (0.1-2.5 mIU/L), in 61% (n=335) during the second trimester (0.2-3 mIU/L), and in 70% (n=338) during the third trimester (0.3-3 mIU/L). In multivariate analysis, women that underwent a total thyroidectomy due to a benign thyroid disease, were at the highest risk for not attaining target TSH levels. Conclusions: This very large cohort of pregnant women with a past history of thyroid surgery demonstrated a significant percentage of pregnancies with TSH values above the recommended range. Women that underwent a total thyroidectomy due to benign thyroid disease were at the highest risk for gestational hypothyroidism.

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