

**THYROID CANCER AND PREGNANCY****Is the long-term prognosis of thyroid cancer affected when first diagnosed during pregnancy?****BACKGROUND**

Thyroid cancer is the fastest rising cancer in women. It is also the second most common cancer diagnosed during pregnancy. It is suggested that the changes associated with pregnancy may play a role in thyroid cancer development and growth. However, little is known regarding the outcome of thyroid cancer related to pregnancy and only a few studies have been conducted examining the long-term outcome of women with thyroid cancer related to pregnancy. The aim of this study was to examine the clinical outcome of women diagnosed with thyroid cancer during pregnancy or shortly thereafter, as compared to non-pregnant women diagnosed with thyroid cancer.

**THE FULL ARTICLE TITLE**

Messuti I et al. Impact of pregnancy on prognosis of differentiated thyroid cancer: clinical and molecular features. *Eur J Endocrinol*. February 7, 2014 [Epub ahead of print].

**SUMMARY OF THE STUDY**

A total of 340 patients were divided into 3 groups according to the time of thyroid cancer diagnosis: women with a diagnosis of thyroid cancer at least two years after delivery, women with a diagnosis of thyroid cancer during pregnancy or within two years after delivery and women who had never had children at the time of diagnosis of thyroid cancer. Several clinical parameters were measured, such as thyroglobulin and thyroglobulin antibodies,

estrogen and progesterone receptor expression and prevalence of BRAF V600E mutations.

The study found that persistence or recurrence of thyroid cancer was significantly higher in women when the diagnosis was made during pregnancy or within two years after delivery as compared to the other two groups. There were no significant differences among groups in any of the other clinical parameters studied.

**WHAT ARE THE IMPLICATIONS OF THIS STUDY?**

This study shows that persistence or recurrence of thyroid cancer is significantly higher in pregnant patients, suggesting that pregnancy may have an unfavorable prognosis in patients with thyroid cancer. This study is important as more aggressive initial therapy may be parrenbted when thyroid cancer is diagnosed during or soon after pregnancy. Certainly, careful follow-up is needed when diagnosis of thyroid cancer occurs during pregnancy or shortly thereafter.

— Maria Papaleontiou, MD

**ATA THYROID BROCHURE LINKS**

Thyroid cancer: <http://www.thyroid.org/cancer-of-the-thyroid-gland>

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

**DEFINITIONS AND ABBREVIATIONS**

**Thyroglobulin:** a protein made only by thyroid cells, both normal and cancerous. When all normal thyroid tissue is destroyed after radioactive iodine therapy in patients with thyroid cancer, thyroglobulin can be used as a thyroid cancer marker in patients that do not have thyroglobulin antibodies.

**Thyroglobulin antibodies:** these are antibodies that attack the thyroid instead of bacteria and viruses; they are a marker for autoimmune thyroid disease, which is the main underlying cause for hypothyroidism and hyperthyroidism in the United States.

**Estrogen:** the main female hormone. Estrogen levels are increased during pregnancy.

**Progesterone:** a female hormone. Progesterone levels are increased during pregnancy.

**BRAF V600E mutations:** mutations in a cancer-associated gene important in thyroid cancer.