

our case the factitious elevation was limited to total T3. We alert clinicians to be aware of factitious elevation of thyroid hormones due to high affinity binding to immunoglobulins. In our case this caused spurious elevation of total T3, but not total T4, in a patient with multiple myeloma and an IgG kappa M spike paraprotein. **Reference:** 1: Marianna Antonopoulou, Arnold Silverberg, "Spurious T3 Thyrotoxicosis Unmasking Multiple Myeloma", *Case Reports in Endocrinology*, vol. 2013, Article ID 739302, 3 pages, 2013. <https://doi.org/10.1155/2013/739302>

Thyroid

THYROID DISORDERS CASE REPORT

Gestational Thyrotoxicosis in a Patient With Hyperemesis Gravidarum

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Untreated or inadequately treated overt hyperthyroidism in pregnancy can have devastating consequences for both mother and fetus. At the same time antithyroid drugs (ATDs) are known for their teratogenic effect and should be avoided when possible; once the diagnosis of hyperthyroidism is made in a pregnant woman, attention should be focused on determining the etiology of the disorder and whether it warrants treatment. Here, we report a case of hyperemesis gravidarum patient presenting with significant elevation of thyroid hormones and a review on diagnosis and management of gestational transient thyrotoxicosis. A 33-year-old female, G4P3 at 8 weeks pregnant admitted for nausea and vomiting. Thyroid labs showed TSH < 0.01 (**Reference:** 0.4-4.0mU/L) and free T4 is 3.53 (**Reference:** 0.76-1.46ng/dl). Patient was discharged on antiemetics with a diagnosis of hyperemesis gravidarum. She was re-admitted at 9 weeks pregnant with ongoing nausea and vomiting. She had palpitations, fatigue and reported 15 pound weight loss in 2 weeks. Past medical history included thyroid hormone abnormality noted during pregnancies of 2011 and 2017. Physical exam was significant for tachycardia and diffusely enlarged thyroid gland. Repeat labs showed TSH < 0.01, free T4 5.81, total T3 of 317 (**Reference:** 60-181ng/dl). Thyroid ultrasound showed multiple nodules. Considering significant elevation in free T4 and total T3; empiric therapy with propylthiouracil was recommended. Patient declined anti-thyroid therapy. TSI and TRH antibodies came back later as negative. Patient was treated with enteral feeding for hyperemesis gravidarum. Thyroid labs 3 weeks later improved; FT4 down to 1.63 and TT3 down to 250. Patient delivered healthy baby at 40 weeks of gestation. Although the differential diagnosis of thyrotoxicosis in pregnancy includes any cause that can be seen in a nonpregnant patient, the most likely causes for hyperthyroidism in pregnancy are gestational thyrotoxicosis (GTT) with or without hyperemesis gravidarum or Graves' disease. GTT is described as an hCG-mediated hyperthyroidism that occurs in the first trimester of pregnancy; it is generally asymptomatic with mild biochemical hyperthyroidism. Distinguishing true overt hyperthyroidism from GTT in

a setting of hyperemesis gravidarum is challenging. The absence of clinical signs of hyperthyroidism and negative thyroid antibodies supports the diagnosis of GTT. T3 tends to be disproportionately elevated more than T4 in patients with overt hyperthyroidism. HCG level has not been found to be useful in distinguishing between GTT and GD. Overt hyperthyroidism is treated using anti-thyroid drugs (ATD) whereas supportive therapy without ATD is the accepted standard of treatment of patients with hyperemesis gravidarum and GTT. More studies addressing the best management of these group of patients is needed.

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THYROID DISORDERS CASE REPORT

Graves Disease in Infancy

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Background: Graves disease (GD) is the most common cause of hyperthyroidism worldwide. The usual age of presentation is between 20-30 years, and it is more common in females. Transient hyperthyroidism does occur in infants born to mothers with GD, however, the novo GD in infants is extremely rare. We are aware of only four cases of GD in children under the age of 2 years old previously reported in the literature, with the youngest being of 18 months. Although rare, the complications can be devastating, so identifying and treating GD in infants is vital. We describe an infant who presented at 12 months of life with poor weight gain.

Patient Findings: A 12-month old female patient presented with weight loss, tachycardia, diaphoresis and hypertension. She had a palpable thyroid gland without ocular changes. She was found to have an undetectable Thyroid Stimulating Hormone (TSH) with an elevated free T4 of 2.1 ng/dL (normal 0.80 - 1.50 ng/dL). She was stabilized in the intensive care unit with beta-blocker and methimazole. The diagnosis of GD was subsequently confirmed with an extremely elevated elevated Thyroid Stimulating Immunoglobulins (TSI) titer of 263 IU/L (normal 0.00-0.55 IU/L), her TSH receptor gene was normal. At 34 months of age, her TSI titer is still elevated at 34 IU/L and she still requires methimazole to maintain a euthyroid state. She is growing and developing appropriately.

Conclusion: To our knowledge, this report describes the youngest child to be diagnosed with GD in the English literature. Only four patients between the ages of 18 - 24 months have been described. Autoimmune diseases are rare in infants, the reason for which GD developed at such a young age remains unclear. Clinical signs and symptoms of hyperthyroidism in infants can be subtle and easily missed: increased growth velocity, failure to gain weight, autonomic changes, and irritability. Most patients have an enlarged thyroid gland, and some have ocular changes. The major long-term complications of undiagnosed hyperthyroidism include craniosynostosis and permanent neurocognitive damage. A high index of suspicion is needed

for the recognition and prompt treatment of GD in infants, leading to better clinical outcome.

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THYROID DISORDERS CASE REPORT

Graves' Disease and Evans' Syndrome as First Manifestation of Systemic Lupus Erythematosus

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Background: Graves' disease is the most common cause of hyperthyroidism triggered by antibodies called thyroid-stimulating immunoglobulin (TSI) which stimulates an overproduction of thyroid hormones. Evans' syndrome is a rare condition characterized by autoimmune hemolytic anemia and immune thrombocytopenic purpura. Systemic lupus erythematosus (SLE) is also an autoimmune disease with extreme heterogeneity and potentially involvement of any organ or system. It is well known when a patient is diagnosed with an autoimmune disease, it is about time to show up other manifestations of another one, just as it happened in this case report. **Clinical Case:** A 31-year-old pregnant woman (22 weeks) was admitted to the obstetric emergency room due to headaches, weakness and tinnitus. During anamnesis, she said she was diagnosed with hypertension several weeks before she was pregnant. At physical examination, a 160/100 mm/Hg blood pressure and a heart rate over 100 bpm were found. Initial tests were solicited congruent with severe thrombocytopenia (20 000/mm³) and severe anemia (6 gr/dl), there was also a modest increase in transaminases levels. Transfusion support was needed and a "HELLP syndrome" was diagnosed. Gynecologists decided to perform an emergency hysterotomy and the end of pregnancy. During the post-operative care and the following days, the patient persisted with an average of 100 bpm heart rate and hypertension despite of the use of antihypertensive medication. Physicians also noticed the presence of malar rash and goiter. Thyroid hormones levels where requested and the results were consistent with primary hyperthyroidism (TSH: <0.005 Mu/L, FT4: >100 pmol/L). Further tests were required such as TSI (positive), a thyroid scintigraphy (high thyroid uptake), antinuclear antibodies (ANA: + 1/160 speckled pattern, anti-Smith: +) and extractable nuclear antigen antibodies (ENA) panel. Grave's disease and SLE were diagnosed. Rheumatologists suggested that the diagnosis of HELLP Syndrome was unclear and they strongly believed that thrombocytopenia and anemia during pregnancy were part of Evans's syndrome and at the same time of SLE. Antithyroid drugs (thiamazol), beta blockers (propranolol) hydroxychloroquine and corticoids (prednisone) were given to the patient with an excellent clinical and biochemical response. **Conclusion:** A 25% of patients with SLE can be diagnosed with an autoimmune thyroid disease, such as Graves' disease (1). Frequent evaluation of thyroid hormones and antithyroid antibodies should be performed in patients with SLE, especially when there are related symptoms of a thyroid disorder. **References:** 1.Chan AT, Al-Saffar Z, Bucknall RC. Thyroid

disease in systemic lupus erythematosus and rheumatoid arthritis. *Rheumatology (Oxford)*. 2001;40:353---4.

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THYROID DISORDERS CASE REPORT

Graves' Disease Presenting After 25 Years of Stable Thyroid Hormone Replacement Therapy

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Background: Autoimmune thyroid disease may present with a wide range of symptoms. When the presentation is hyperthyroidism due to Graves' Disease the symptoms generally subside over the subsequent two years but may recur at any time months to years later. When the initial presentation is hypothyroidism that person usually remains hypothyroid, requiring thyroid hormone replacement therapy for the rest of their life. **Clinical Case:** 67 year old woman presenting with hyperthyroidism after 25 years of stable dose thyroid hormone replacement therapy (THRT). She recalls being diagnosed with hyperthyroidism in her late 30s. She did not take any medication at that time. She is very clear that she was not treated with radioactive iodine or surgery. She recalls presenting with fatigue and weight gain about 2 years later at which time she was initiated on thyroid hormone replacement therapy. After multiple dose changes in the first few years she was stabilized on 90 mg daily of Armour thyroid. After more than 20 years on this dose the hyperthyroid symptoms recurred. Her symptoms persisted after decreasing then, ultimately, stopping the Armour Thyroid. Evaluation for causes of hyperthyroidism revealed the presence of both TRAb and TSI antibodies that have decreased in titer but are now still present more than 4 years after the diagnosis of hyperthyroidism. Symptoms have been controlled over this time period with low dose (5-10 mg/day) methimazole. **Conclusion:** Hypothyroidism is very common in women, with Hashimoto's Thyroiditis as the usual etiology. When patients on thyroid hormone replacement therapy (THRT) present with symptoms of hyperthyroidism they are usually managed with dose reduction. However, complete cessation of THRT is unusual, especially after more than 10-20 years of therapy. Dose reduction of more than 50% without contributing factors such as significant weight loss should prompt measurement of TRAb and/or TSI to evaluate for Graves' Disease regardless of the duration of the THRT.

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THYROID DISORDERS CASE REPORT

Graves' Disease After Hematopoietic Allogeneic Bone Marrow Transplant in a Patient With Sickle Cell Disease

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Endocrinopathies are among the most recognized late complications post hematopoietic stem cell transplant (HSCT). Dysfunctions of hormonal axes including the hypothalamus, pituitary, gonads, thyroid and adrenals reported.