Myocarditis is a rare presentation of Graves' disease, fulminant myocarditis is even rarer. We report a woman with Graves' disease with fulminant myopericarditis as the presenting clinical feature. A 23-year-old healthy woman presented with acute onset pleuritic chest pain, palpitations, diaphoresis, heat intolerance, and dyspnea. There was no history of fever, upper respiratory tract infection, diarrhea, or weight loss. Physical exam revealed sinus tachycardia and palpable non-tender thyroid. Blood work was pertinent for TSH <0.01uIU/ml(0.3-4.5), free T4 2.8ng/dl(0.6-1.5), free T3 > 32.6pg/ml (2.4-4.2) and positive TSI (thyroid-stimulating immunoglobulin) 12.4 IU/L (<0.54). She had a diffusely enlarged vascular thyroid on ultrasound, all findings consistent with hyperthyroidism due to Graves' disease. Electrocardiogram showed sinus tachycardia with diffuse PR depression and ST-segment elevation, troponin was 0.85 which increased to 17.5 within 12 hours, an echocardiogram showed normal ejection fraction (EF) with mild pulmonary hypertension but no pericardial effusion. She improved symptomatically with beta-blockers, methimazole, and colchicine but unfortunately had a witnessed ventricular fibrillation cardiac arrest in the next 12 hours with return to spontaneous circulation achieved after 90 minutes of bystander cardiopulmonary resuscitation. Coronary angiogram revealed normal coronaries with post-cardiac arrest EF of 5%. She subsequently developed acute respiratory distress syndrome secondary to massive pulmonary hemorrhage requiring extracorporeal mechanical support for worsening cardiogenic shock, succumbing to her illness a few hours later. Graves' disease affects 0.5% of the population and causes hyperthyroidism in 50-80% of cases. Thyrotoxicosis may be associated with supraventricular arrhythmias and cardiomyopathy due to long-standing untreated hyperdynamic heart failure, but myopericarditis is an unusual presentation of Graves' thyrotoxicosis with fulminant myopericarditis being even rarer. Fulminant myocarditis can present with ventricular tachyarrhythmias and can rapidly deteriorate into shock which may be difficult to distinguish from other causes of cardiogenic shock such as acute coronary syndromes or stress-induced cardiomyopathy. Myopericarditis associated with Graves' is thought to be due to autoimmunity against functional TSH receptors identified in human cardiomyocytes. Fulminant myocarditis is a common cause of sudden cardiac death in young healthy adults, which is also the same population that gets Graves' disease. It is critical to recognize the unusual presenting features of Graves' disease such as fulminant myopericarditis, as timely aggressive intervention can reduce the risk of sudden cardiac death.

Thyroid

THYROID DISORDERS CASE REPORT

Hashimoto's Thyroiditis Associated Thyroid Eye Disease:A Success Story of Teprotumumab.

Issra Jamal, MD.
Carolina diabetes and kidney center, Sumter, SC, USA.

Background: Thyroid-associated eye disease is more common in patients with Graves' disease. However, patients with Hashimoto's may also be affected by thyroid-associated eye disease in up to 6% of patients. **Clinical Case:** 44 year old female patient with history of Hashimoto's thyroiditis presented to the clinic for her hypothyroidism and evaluation of thyroid eye disease. The patient was experiencing episodes of bilateral and unilateral inflammation of her eyes described as redness, dryness, bulging of the eyes. She was evaluated by ophthalmology and was diagnosed with thyroid eye disease and was prescribed a course of steroids with partial improvement of the symptoms. Orbital MRI was ordered and it showed symmetrical enlargement of the inferior rectus muscles bellies bilaterally with the left being slightly more enlarged than the right, retro orbital fat pad was grossly inflamed. TPO was elevated,TSI and TRAb were negative. Patient continued to have frequent flare ups with suboptimal response to steroid therapy. A discussion about starting Teprotumumab was made due to lack of optimal response to steroids and worsening of her symptoms and therapy was started. Patient did develop significant hyperglycemia, but she did not have recurrent flare ups. Studies have found that Thyroid-associated eye disease was present in up to (6%) of Hashimoto's thyroiditis patients, those with thyroid-associated eye disease tended to be older, have a longer duration of Hashimoto's thyroiditis, heavy smokers, and were less likely to present with another associated autoimmune disease. TSAb was positive in 5.5% in the patients with Hashimoto's and thyroid-associated eye disease. Teprotumumab ([IGF-1] receptor inhibitor) was approved for the treatment of Graves' orbitopathy by the (FDA) in 2020. **Conclusion:** Hashimoto's thyroiditis associated thyroid eye disease is a rare clinical presentation. Teprotumumab is a new FDA approved treatment for thyroid eye disease that was successful in treating the symptoms and prevented flare ups in this patient. Careful monitoring of side effects is recommended.

References: Kahaly GJ et al Thyroid stimulating antibodies are highly prevalent in Hashimoto's thyroiditis and associated orbitopathy. J Clin Endocrinol Metab. March 10, 2016\Krassas GE, Wiersinga WM. - Thyroid eye disease: current concepts and the EUGOGO perspective. Thyroid International. 2005;4:3–4. Teprotumumab for Thyroid-Associated Ophthalmopathy. Smith TJ, Kahaly GJ, Ezra DG, Fleming JC, Dailey RA, Tang RA, Harris GJ, Antonelli A, Salvi M, Goldberg RA, Gigantelli JW, Couch SM, Shriver EM, Hayek BR, Hink EM, Woodward RM, Gabriel K, Magni G, Douglas RS SO N Engl J Med. 2017;376(18):1748.

Thyroid

THYROID DISORDERS CASE REPORT

Hashimoto's Thyroiditis Presenting With Hoffman's Syndrome in a Patient With the Coronavirus Disease 2019 (COVID 19): Hormone Replacement in the Time of the Pandemic

Ramon Bagaporo Larrazabal, Jr, MD[1], Harold Henrison Chang Chiu, MD[2], Franz Michael Millar Magnaye, MD[3], Laura T. Acampado, MD[1].
[1]University of the Philippines Manila, Metro Manila, Philippines, [2]UNIVERSITY OF THE PHILIPPINES MANILA, Manila, Philippines, [3]UNIVERSITY OF THE PHILIPPINES MANILA, Sto. Tomas, Philippines.

Introduction: Hoffmann's syndrome is a very rare and reversible manifestation of hypothyroidism presenting as