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"Living With Graves' Disease: A Disease Not to Be Ignored"

"Why do I feel dizzy and discombobulated all the time?" I wonder to myself. The feeling of being in my own little world scares me and getting through each day is a struggle. The scale each morning shows another drop in weight. Not exercising at the moment and eating cookies daily doesn't usually warrant weight loss for me, so I wonder some more. Falling in line comes fatigue, joint pain, and heart flutters and WebMD is scoured to check out these debilitating symptoms. My stomach drops as the anxiety creeps in. There are a plethora of problems that correlate with any number of these symptoms, and I don't even know where to start. That's my cue to call the doctor.

The cold gave me goosebumps as the antiseptic aroma wafted through the air. Doctor's offices are not a calming place for me, especially when I'm waiting for a fasting blood panel and physical. When you are all alone in a strange, quiet place, your mind begins to wander into not-so-friendly territories. What if I have cancer or a heart issue? Am I going to die? What felt like hours later, the doctor came in, assessed me, and we began a discussion on how I have been feeling.

"Well Dr. Nicole, I'm so tired all of the time and I feel like my head isn't exactly working right. I've lost weight and haven't been trying, my anxiety is bad, and my heart flutters regularly. I'm also really irritable and feel like I could lose it at any moment; I'm constantly snapping at my husband and kids. Whatever I have going on is affecting my life negatively."

She began typing on her laptop furiously with a furrowed brow and that anxiety began to do a number on my stomach. She very calmly told me it could be several things, but she would know more once my blood work and a few more tests came back. This had me in a head spin...why can't I find anything out today? A nurse then appeared with the EKG machine, which monitors your heart rhythm, and proceeded to hook me up. I had about had it with being poked

and prodded for the day but then was very relieved when my EKG came back normal. One piece of good news today. As a precaution, my doctor also ordered an Echocardiogram, to make sure blood is flowing properly through my heart, and to rule out any heart issues. Then I was out the door like all hell was on my heels and the waiting game for my results ensued.

Two days later my heart dropped as the doctor's office's name came up on my phone. The nurse proceeded to tell me that there were some concerning levels with my bloodwork, and I needed to come back into the office to talk to the doctor. From there it was discovered that my thyroid levels were off—the three main thyroid hormones tested are thyroxine, or T4, triiodothyronine, or T3, and thyroid-stimulating hormone or TSH. My TSH was extremely low, barely registering at 0.01, T3 was 170 and T4 was 1.6. Normal thyroid levels in T3 range from 100-200, T4 0.8-1.8, and TSH 0.4-2.5 (Basile). Clearly, my TSH was the concerning number. My doctor then scheduled a thyroid ultrasound/scan which showed I have small nodules. According to the Cleveland Clinic, "A thyroid nodule is an unusual growth (lump) of thyroid cells in the thyroid gland" (Cleveland Clinic). Mine are small and not suspicious thank the Lord! With a referral in my hand and a notion that an endocrinologist was now going to be a part of my future, I cringed at the thought of another appointment.

An Endocrinologist is a doctor who treats people with endocrine disorders (i.e., hyperthyroidism, diabetes, etc.) With an extremely uneasy feeling, I made my way to this specialist. As we discussed my symptoms (which I will get into in a minute), instead of feeling afraid, a calmness came over me. For the first time in a while, I felt like this person is going to make me feel better. My doctor wanted to do more blood work—yay—but a more specific kind. "Measurement of levels of circulating TSH receptor antibody may eventually replace the need for the RAIU (Radioactive Iodine Uptake) for confirmation of the diagnosis. However, as

thyroid nodules associated with Graves' disease may have a higher likelihood of malignancy and may be more aggressive if cancerous, a thyroid scan is recommended for all patients" (Ginsberg). Since I had already done the thyroid scan and the results came back on the better end, the need to check for Graves' antibodies was top priority. Well low and behold, when my blood came back, those bastard antibodies were there. Looking on the bright side, which is the only way I could look at the moment—mine is a mild form of Graves' Disease and not everyone is so lucky.

I thought I did a lot of research on my symptoms but lord I didn't leave my computer for quite some time researching this new thorn in my side. Symptoms...this is a tricky word when it comes to this disease. There are 'typical' symptoms, along with many more and the symptoms depend on the person. According to the American Thyroid Association, "The majority of symptoms of Graves' disease are caused by the excessive production of thyroid hormones by the thyroid gland. These may include but are not limited to, racing heartbeat, hand tremors, trouble sleeping, weight loss, muscle weakness, neuropsychiatric symptoms, and heat intolerance" (American Thyroid Association). Pay attention to the words 'Not limited to.' Added to this list of symptoms can also include goiter, red, inflamed, or bulging eyes, and a skin disease called Graves dermopathy (American Thyroid Association). As Graves' Disease is also an autoimmune disorder, other disorders are associated with this disease that can also make themselves known including Addison's disease, type 1 diabetes, celiac disease, etc. (Ginsberg). Everyone's symptoms vary, but it is important to keep track of current and any new symptoms that may arise. Feeling very lucky that my symptoms are mild compared to some of these, my prayers are of thanksgiving and healing.

Once diagnosed, four treatments will help you feel better, enable your thyroid levels to normalize, and hopefully gain remission. As this disease never goes away entirely, euthyroidism, or having normal thyroid function without medication, is the ultimate goal. The four different kinds of treatments include beta-blockers, Antithyroid drugs, Radioiodine, and surgery. Each one is very different with risks of their own and is decided with the best possible outcome for each person.

Discussing each treatment is key and this is where research and knowledge of each will come in handy. Ginsberg states, "Increased β-adrenergic activity is responsible for the palpitations, tachycardia, tremulousness, anxiety and heat intolerance associated with this condition" (Ginsberg). Beta-blockers are a medication taken once a day with a dosage around 25-50 mg/d and should help relieve these symptoms. Radioiodine is administered as a solution or capsule. Ginsberg writes, "Radioiodine is rapidly incorporated into the thyroid and via its β-emissions produces radiation thyroiditis and fibrosis resulting in euthyroidism usually within 6–18 weeks" (Ginsberg). Surgery is also an option and removes the entire thyroid. This should be done if other treatments are ineffective, large goiters are present, you are pregnant, a worsening of thyroid ophthalmopathy, or there are possible suspicious nodules that could be cancerous (Ginsberg). Once the thyroid is surgically removed, a hormonal replacement drug, such as Synthroid, should be taken to restore the hormones produced by the thyroid that is no longer there.

Antithyroid drugs, which is what my treatment plan consisted of, are effective in keeping the thyroid hormones in check and the best path to remission. Ginsberg writes, "The thioamide drugs, propylthiouracil and methimazole, are actively transported into the thyroid gland and inhibit important steps in thyroid hormone synthesis" (Ginsberg). Methimazole was my chosen

drug and given with a fifteen-milligram dosage, to begin with. As my levels began to rise and stabilize, my symptoms began to float away like a raft out to sea. I was weaned down to a smaller dosage until I achieved euthyroidism after a year and a half of taking Methimazole. I had come a long way in the healing process, and this was a huge victory for me. I finally felt well enough to lead a normal life and by gaining knowledge about this disease I had a newfound respect for how precious life really is.

Making sure you get the proper treatment with this disease is detrimental and can avoid a thyroid storm. Although rare, it can be life-threatening. Thyroid storm can be brought on by infection, trauma, surgery, or iodine load. The following is noted by Ginsberg, "The symptoms of hyperthyroidism are exaggerated and may include significant tachycardia, hyperpyrexia, congestive heart failure, neurological compromise, and gastroenterological or hepatic dysfunction" (Ginsberg). Getting to the hospital quickly so that aggressive treatment is admitted, is of utmost importance. If that's not enough to scare the pants off of you then I don't know what will! Learning what can happen has been meaningful and eye-opening. Knowledge is power!

Managing Graves' Disease can take time and wreak havoc on your system in the process, but it is necessary for the survival and health of each person. One thing this disease has taught me is that self-care is so important in maintaining a healthy mindset and body. As we get older ailments are to be expected and ignoring new symptoms could be detrimental to our body. "Get a physical every year starting when you are thirty," my mom always told me. That is what I did and that made me more in tune with my body and thankfully I was diagnosed and started healing early on. Don't wait to go to the doctor, eat well, exercise, and manage your stress to stay on top of this disease. I am a huge advocate for being good to your body. God only gave us one, and it is up to us to take care of it!

Works Cited

- "About the ATA® Mission, Values, Goals." *American Thyroid Association*, 2021, www.thyroid.org/about-american-thyroid-association/.
- Basile, Lisa Marie. "What Are T3, T4, and TSH?" *EndocrineWeb*, 2020, www.endocrineweb.com/thyroid-what-are-t3-t4-tsh.
- Ginsberg, Jody. "Diagnosis and Management of Graves' Disease." *CMAJ*, CMAJ, 4 Mar. 2003, www.cmaj.ca/content/168/5/575.full#sec-3.
- "Thyroid Nodule: Causes, Signs, Symptoms, Diagnosis & Treatment." *Cleveland Clinic*, 2013, my.clevelandclinic.org/health/diseases/13121-thyroid-nodule.