Grave’s disease: case report

A 35-year-old woman developed Grave’s disease during treatment with ipilimumab for metastatic melanoma. She had normal thyroid function tests before starting the therapy. She presented to hospital with complaints of weight loss, extreme fatigue, heat intolerance, irritability and palpitations. She was noted to have hyperthyroidism with an undetectable TSH of <0.006 mIU and elevated FT4 with a normal FT3. The TRAB was normal at 1.31. Ultrasound of thyroid revealed mildly enlarged diffusely heterogeneous thyroid. Radioiodine uptake scan (RAIU) was diffused due to recent contrast exposure. She was discharged on unspecified beta blocker and prednisone taper with assumption of hyperthyroidism due to thyroiditis, given normal TRABs. Upon follow up repeat labs in 4 weeks showed TSH of <0.02, elevated FT4 and elevated FT3. The RAIU was done, which showed diffuse uptake of 31.5% in 24 hours. The RAIU in high normal range with family history of Graves’, elevated FT3/FT4 ratio and ipilimumab use favored autoimmune etiology and hence diagnosis of antibody negative Graves’ disease secondary to ipilimumab [duration of treatment to reaction onset not stated].

The woman received treatment with thiamazole [methimazole]. One month after initiation of thiamazole therapy, laboratory test showed TSH <0.02, FT4 of 0.57 and T3 6.5, and thiamazole dose reduced. Follow up lab result showed, TSH <0.01, FT4 0.15 and FT3 3.9, and thiamazole discontinued. Repeat labs in 3-4 weeks with TSH 0.03, FT4 0.07 and FT3 of 2.6. Later, she was started on hydrocortisone and later levothyroxine sodium [levothyroxine].

Manzoor S. Abstract #1004335: An Unusual Case of Rapidly Evolving Thyroidal Dysfunction from New Onset Antibody Negative Graves’ Disease to Central Hypothyroidism Within Few Weeks of Starting Ipilimumab (Immune Check Point Inhibitor) Therapy. Endocrine Practice 27 (Suppl.): S182, No. 6, Jun 2021. Available from: URL: http://doi.org/10.1016/j.eprac.2021.04.855 [abstract]