

VERY HIGH TSH AFTER RADIATION THERAPY FOR PAPPILLARY THYROID CANCER.

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Background/Purpose: Mainstay of treatment of Papillary Thyroid carcinoma is surgical thyroidectomy and irradiation which results in iatrogenic hypothyroidism. We present the case of a patient with the highest TSH level found.

Methods: A 22 year old Hispanic female patient with a history of Wegener's granulomatosis, papillary thyroid carcinoma diagnosed at age 19, status post total thyroidectomy and 100mci I-131 ablation, was started on daily oral levothyroxine therapy.

Results: Follow up revealed gradually rising TSH levels over 1000uIU/mL. Patient admitted to sporadic non-compliance and was counseled multiple times. Thyrotropin reached 1654.841uIU/mL. Tests were repeated several times to verify that this indeed is a correct value and not an error. Except occasional bradycardia and flat affect the patient's physical exam was unremarkable. She was well adjusted to her only symptoms of chronic fatigue and mild depression. TSH levels decreased to 149.180uIU/mL after intravenous infusion of levothyroxine three times a week was added to daily oral levothyroxine therapy.

Discussion & Conclusion: To our knowledge, after review of the literature, we conclude that this TSH level of 1654.841uIU/mL is the highest reported. Prior to thyroidectomy this patient's TSH level was normal. There is literature to support existence of antibodies as the cause of such exceptionally high TSH values. However, such an explanation goes against this case since this patient's thyrotropin level was normal before surgery. This is why we did not expect to encounter such a challenge in controlling the levels after thyroidectomy. This appears to be a case of genuinely elevated TSH.