

# BEYOND THE NORM: PROPTOSIS IN A PATIENT WITH HASHIMOTO THYROIDITIS

Gulati, Rishi DO<sup>1</sup> ([rg270679@pcom.edu](mailto:rg270679@pcom.edu)), Alvarado-Rosario, Junior BS<sup>1</sup>, Baux Daniel DO<sup>1</sup>

## INTRODUCTION

Hypothyroidism results from decreased thyroid hormone production, leading to a myriad of symptoms and complications. It predominantly arises from autoimmune conditions like Hashimoto's thyroiditis, surgical interventions, radiation, medications, congenital defects, or insufficient dietary iodine. The clinical diagnosis is affirmed through elevated thyroid-stimulating hormone (TSH) and reduced free triiodothyronine (T3) and thyroxine (T4) levels. This report delineates a rare instance of proptosis in a patient with hypothyroidism, a condition typically associated with hyperthyroid states such as Graves disease.

## Case Presentation

A female patient presented to her PCP reporting a 10lb weight gain, periorbital puffiness, lethargy, hair texture changes, and episodic dizziness. Laboratory tests revealed a TSH level of 72.30, with undetectable free T3, prompting initiation of levothyroxine. Subsequent follow-ups indicated a mixed clinical picture with an elevated Anti-TPO and unusually high thyroid-stimulating immunoglobulins (TSI). She subsequently reported to the ED with bilateral proptosis, diplopia, and restricted eye movement. Despite adherence to levothyroxine, as evidenced by normalized T3 and slightly elevated TSH levels, the proptosis persisted. Endocrine advised outpatient followup for consideration of TEPEZZA, a monoclonal antibody designed for Thyroid Eye Disease (TED).

## RESULTS & DISCUSSION

Proptosis in hypothyroidism is exceptionally rare, as it is primarily seen in hyperthyroid conditions like Graves' disease, which involves inflammation and swelling of the orbit. The patient's elevated TSI levels, alongside hypothyroidism, present a unique contradiction. Imaging studies confirmed no other causes for her symptoms, such as orbital cellulitis, neoplasms, or pseudotumor, pointing to hypothyroidism as the likely culprit. Despite conventional treatment with levothyroxine and corticosteroids for inflammation, her condition necessitated consideration of novel treatments. TEPEZZA (teprotumumab-trbw), a monoclonal antibody targeting IGF-1R, represents a groundbreaking approach for managing TED by mitigating inflammation and fibrosis, offering hope for similar atypical presentations of proptosis in hypothyroid patients. Additionally, Osteopathic Manipulative Medicine (OMM) could offer adjunctive benefits. OMM, with its holistic approach, could potentially alleviate some of the musculoskeletal symptoms and improve lymphatic flow, complementing the biopsychosocial model of care by addressing physical discomfort, promoting relaxation, and potentially enhancing overall well-being alongside conventional treatments. This case underscores the complexity of thyroid disorders and the need for awareness of their atypical manifestations.

## CONCLUSION

In this case report, we explored an unusual presentation of proptosis in a patient with Hashimoto's thyroiditis, traditionally associated with hypothyroidism, rather than the hyperthyroid states typically implicated in such symptoms. Despite the normalization of thyroid hormones with levothyroxine treatment, the persistence of proptosis necessitated innovative therapeutic approaches, highlighting TEPEZZA as a promising treatment for such rare manifestations.

## REFERENCES

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