

**CASE 2**

A 58-year-old female presented with a 7-year history of toxic multinodular goitre before her referral to our centre. She had been receiving fluctuating doses of carbimazole and her TFT remained uncontrolled. She also had retrosternal thyroid extension with mass effect. Her TFT remained uncontrolled despite carbimazole 25 mg/day, and coupled with compressive symptoms, navigated us towards definitive surgical intervention. Timely Lugol's iodine treatment optimized her TFT preoperatively and she successfully underwent total thyroidectomy.

**CONCLUSION**

Both cases highlighted the difficulty in managing thyrotoxicosis and surgical intervention was the best definitive treatment. Perioperative preparation is often challenging requiring multimodal approach to lower free T4 to acceptable levels prior to definitive thyroidectomy.

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**GAZE BEYOND THE BOUNDARIES:  
TRANSCENDING THE HURDLES IN  
MANAGING GRAVES OPHTHALMOPATHY  
IN A DISTRICT HOSPITAL SETTING**

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**INTRODUCTION/BACKGROUND**

Graves ophthalmopathy (GO) is an autoimmune condition characterized by inflammation and tissue expansion within the orbit. The pathogenesis of GO involves complex interactions between autoantibodies, inflammatory mediators, and orbital fibroblasts. GO affects both the soft tissues and the extraocular muscles, leading to a range of ocular manifestations, including proptosis, eyelid retraction, diplopia, and in severe cases, vision loss.

**CASE**

An 18-year-old female, a passive smoker with no significant medical history, presented to a district hospital with sudden onset of exophthalmos, eye discomfort, and double vision persisting for three weeks. She has a strong family history of thyroid disease. Physical examination revealed the patient to be in a state of thyroid storm and a clinical activity score (CAS) of 3. The ophthalmologic evaluation revealed bilateral proptosis, conjunctival injection, and restricted extraocular movements consistent with GO. Laboratory investigations confirmed hyperthyroidism. Orbital CT demonstrated enlargement of the extraocular muscles and expansion of orbital fat, further supporting the diagnosis of GO. The

patient was promptly initiated on treatment for thyroid storm, including antithyroid medications and supportive care to stabilize thyroid function. Systemic corticosteroids and lubricating eye drops were administered to alleviate ocular symptoms. With aggressive medical management, the patient's thyroid storm resolved, and ocular symptoms showed significant improvement throughout treatment.

**CONCLUSION**

This case highlights the importance of considering GO in the differential diagnosis of patients presenting with exophthalmos and ocular symptoms, especially when complicated by thyroid storm. Early recognition and collaborative management are essential for optimizing outcomes in such cases.

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**OUTCOME OF THYROID STORM CASES  
IN 2023 AT HOSPITAL TELUK INTAN,  
MALAYSIA**

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**INTRODUCTION/BACKGROUND**

Thyroid storm, also known as thyrotoxic crisis, is an acute, life-threatening condition induced by the excessive release of thyroid hormones in individuals with thyrotoxicosis that present with systemic involvement. Thyroid storm mortality is estimated to be 8 to 25% despite modern advancements in its treatment and supportive measures. It is now an uncommon condition because of earlier diagnosis and treatment of thyrotoxicosis. Thyroid storm is commonly associated with Graves' disease, but it may occur in patients with toxic nodular goitre or any other cause of thyrotoxicosis. Thyroid storm may be precipitated by a number of factors including intercurrent illness, especially infections.

**METHODOLOGY**

This is a retrospective audit which included all patients who were admitted for thyroid storm from January 2023 to December 2023. The data was collected from clinical notes and electronic medical records.

**RESULTS**

A total of 23 subjects were included in this audit, which predominantly were female at 87%. Median age of the study population is 40 with the youngest subject aged 13 and the oldest was aged 64. The mean Burch and Wartofsky score was 47. For identifiable causes of storm, 13 out of 23 subjects

(56%) were due to infection, mostly pneumonia, followed by 22% (5 subjects) due to undiagnosed hyperthyroidism and 17% (4 subjects) were due to defaulted treatment. There were two mortalities (8.7%). Both mortalities required intubation and presented with pulmonary oedema on arrival, and had Burch and Wartofsky scores of 50 and 60 respectively. Mortality rate for thyroid storm in 2023 was 8.7%.

### CONCLUSION

Death from thyroid storm is not as common as in the past owing to its prompt recognition and aggressive treatment in an intensive care unit, but mortality is still approximately 10-25%. Early detection and understanding of hyperthyroidism symptoms among the public are critically important. Analysing the outcomes of thyroid storms at Hospital Teluk Intan highlights the need for increased public education to prevent future deaths caused by thyroid storms.

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### SOMEBODY CALL 9-1-1: HYPOTHYROIDISM MIMICKING WELLENS SYNDROME

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### INTRODUCTION/BACKGROUND

Wellens syndrome is characterized by a distinctive pattern of electrocardiographic (ECG) pattern, specifically deep symmetrical inverted T-waves or biphasic T-waves in leads V2-V3. This condition is highly indicative of critical stenosis in the left anterior descending artery (LAD) which poses a significant risk of mortality, hence its nickname "widow maker."

### CASE

A 38-year-old police officer was under Endocrine clinic follow-up for Graves' disease. He underwent radioactive iodine (RAI) treatment in June 2022 and subsequently did not require thyroxine replacement for 1 year as he was clinically and biochemically euthyroid. During a clinic review in August 2023, he reported symptoms of cold intolerance, weight gain and reduced effort tolerance which hindered his ability to do his daily work. Blood investigation showed a free T4 of 7 pmol/L, and TSH was 13.6 m IU/L. The patient was diagnosed with overt hypothyroidism and was given thyroxine replacement.

Electrocardiogram (ECG) done revealed deep symmetrical T-wave inversions in leads V2-V5, indicative of Wellens Type B pattern, which carries a 97% specificity for LAD occlusion. The patient was referred to cardiology service and underwent an early coronary angiogram, which surprisingly revealed normal coronaries. Additionally, he did not exhibit any features of common Wellen mimics such as pulmonary embolism, pancreatitis, heart failure or acute stroke. He denied consuming alcohol or using any illegal stimulant substances. Blood analysis done revealed normal electrolytes. Patient was initiated on treatment with 12.5 mcg of L-Thyroxine tablets daily, with the dose topped up every 4 to 6 weeks. Upon subsequent clinic reviews, patient's initial symptoms have resolved, enabling him to resume his job without any difficulties.

### CONCLUSION

This case highlights overt hypothyroidism as a mimicker of Wellens Syndrome. After promptly excluding critical coronary artery disease, it is imperative to evaluate and treat other potential causes of Wellens Syndrome or its mimics.

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### AUTOIMMUNE/INFLAMMATORY SYNDROME INDUCED BY ADJUVANTS (ASIA): POST-VACCINATION SUBACUTE THYROIDITIS

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### INTRODUCTION/BACKGROUND

Autoimmune/inflammatory syndrome induced by adjuvants (ASIA), also known as Shoenfeld's syndrome, encompasses a spectrum of autoimmune conditions and responses triggered by exposure to substances with adjuvant activity such as vaccines.

### CASE

A healthy 43-year-old male with no known medical illness or family history of thyroid disorder developed painful thyroiditis after receiving his influenza vaccination. He undergoes regular health checkups, which have consistently shown normal results, including previous thyroid function tests (TFT). Patient received his influenza vaccine (Vaxigrip tetra) and developed left sided neck pain and severe thyrotoxicosis symptoms after 1 week. Blood investigation done showed free T4 25 pmol/L, TSH <0.01 m IU/L and a raised CRP. Physical examination revealed a tender diffuse