

## Adult E-Poster

### EP\_A023

#### SPONTANEOUS REMISSION OF GRAVES' DISEASE FOLLOWING SYSTEMIC LUPUS ERYTHEMATOSUS TREATMENT: A CASE REPORT

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##### INTRODUCTION/BACKGROUND

Hyperthyroidism secondary to Graves' disease is typically managed with thionamides, radioiodine therapy, or thyroidectomy. However, spontaneous remission is uncommon, especially after prolonged thionamide therapy. This case highlights a rare instance of hyperthyroidism remission one year after treatment with steroids for systemic lupus erythematosus, despite seven years of prior thionamide use.

##### CASE

A 25-year-old Malay female with type 1 diabetes mellitus (T1DM) and SLE was diagnosed with Graves' disease at age 15 and treated with carbimazole for seven years. Hyperthyroidism resolved three years before her SLE diagnosis. In 2021, she was diagnosed with Class IV/V lupus nephritis and started on high-dose corticosteroids (methylprednisolone and prednisolone) with cyclophosphamide. One year after initiating steroid therapy, thyroid function tests (TFTs) remained euthyroid without antithyroid medication. Repeat TFTs confirmed continued remission.

Several mechanisms may explain the remission of Graves' disease in this case. High-dose corticosteroids suppress autoreactive B and T lymphocytes, potentially reducing thyrotropin receptor antibody (TRAb) production and facilitating remission. Additionally, corticosteroids enhance regulatory T-cell (Treg) activity, restoring immune tolerance and reducing autoimmunity. The presence of multiple autoimmune diseases suggests a broader dysregulation of immune function, thus immunosuppressive therapy for SLE may have inadvertently suppressed the pathogenic mechanisms driving Graves' disease. Lastly, long-standing autoimmunity can lead to immune exhaustion, where autoreactive immune cells become less active over time, potentially contributing to spontaneous remission.

##### CONCLUSION

Although corticosteroids are not a conventional treatment for hyperthyroidism, their immunomodulatory effects may inadvertently promote disease remission in select cases. This highlights the need for further research to elucidate the potential role of immunosuppressive therapy in achieving sustained remission of autoimmune hyperthyroidism.

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#### AUTOIMMUNE POLYGLANDULAR SYNDROME TYPE IIIA WITH LUPUS NEPHRITIS: A CASE REPORT

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##### INTRODUCTION/BACKGROUND

Autoimmune polyglandular syndrome (APS) is a rare disorder characterized by multiple autoimmune endocrinopathies. The condition is driven by T-lymphocyte-mediated and autoantibody-induced destruction of various organs. APS Type III is defined by the presence of autoimmune thyroid disease in association with other autoimmune conditions, excluding adrenal insufficiency. APS Type IIIa specifically involves autoimmune thyroid disease and type 1 diabetes mellitus (T1DM). Early recognition and multidisciplinary management are crucial for optimal outcomes.

##### CASE

A 25-year-old Malay female with T1DM since age seven, inactive Graves' disease, and systemic lupus erythematosus (SLE) with lupus nephritis presented with loose stools (Bristol 7), vomiting, heartburn, bloating, reduced oral intake, and oliguria of eight days duration. Though she was ambulatory, she had a 2-day history of generalized muscle weakness. There was no fever or other indicators of infection. No dietary indiscretion was noted.

Type 1 diabetes mellitus was well-controlled on an insulin regimen. She had hypertension and dyslipidemia since age ten. Graves' disease resolved three years ago after carbimazole treatment. Systemic lupus erythematosus was complicated by class IV/V lupus nephritis, initially treated with corticosteroids and cyclophosphamide, then eventually shifted to mycophenolate mofetil and bisphosphonates as maintenance therapy. Renal function corresponds to CKD stage 3 (eGFR 36 mL/min/1.73 m<sup>2</sup>).

Examination revealed central obesity, bilateral pitting edema, and striae, without overt dehydration or hyperglycemia. No anemia, acute infection, cardiac failure, or thyroid dysfunction was noted. On the basis of the presence of T1DM, autoimmune thyroid disease, and SLE, she meets APS type IIIa criteria.

##### CONCLUSION

This case highlights the need for heightened awareness of autoimmune polyglandular syndrome (APS), particularly APS type IIIa in patients presenting with multiple autoimmune endocrinopathies. Clinicians should maintain