## **ABSTRACT**

## INTRODUCTION

Autoimmune Polyglandular Syndromes (APS) encompass a diverse spectrum of uncommon conditions marked by the coexistence of a minimum of two distinct organ-specific autoimmune disorders, affecting both endocrine and non-endocrine organs, primarily instigated by organ-specific antibodies guiding T-lymphocytic infiltration. Type III of this syndrome is characterized by the presence of autoimmune thyroid disease alongside other autoimmune conditions, excluding Addison's disease. It is further categorized into four subtypes.

## **CASE PRESENTATION**

We present a case of 68y old female patient with a background history of Hypothyroidism, presented with anemic symptoms and alopecia for several years. On examination she was pale and had glossitis and enlarged thyroid gland. During the evaluation she was found to be having Pernicious anemia which was confirmed by the presence of antibodies against intrinsic factor and gastric parietal cells in the background of autoimmune thyroiditis. Ultimately, she was diagnosed to have autoimmune polyglandular syndrome type 3. Prompt treatment with vitamin B12 and thyroxine supplementation yielded a marked improvement of her symptoms.

## **CONCLUSION**

The presence of alopecia, alongside the recently identified pernicious anemia and autoimmune thyroiditis, fulfills the diagnostic criteria for autoimmune polyglandular syndrome type 3. Swift administration of cyanocobalamin and thyroxine supplements resulted in a rapid and significant improvement within days. This case underscores the significance of thorough evaluations when addressing endocrine glandular dysfunctions. Such assessments are pivotal for precise diagnosis and the timely identification of potential concurrent autoimmune disorders, particularly autoimmune polyglandular syndrome type 3. Early recognition and proper management are critical for optimizing patient outcomes.