

AUTOIMMUNE POLYGLANDULAR SYNDROME II IN A YOUNG FEMALE WITH SEVERE WEIGHT LOSS, DKA, AND PSYCHIATRIC FEATURES



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Introduction

- ❖ This is a case report of a 19-year-old female with APS II.
- ❖ APS II is a rare combination of multiple endocrine diseases in a person.
- ❖ The most common associated diseases are Diabetes type I, Hashimoto Thyroiditis, and Addison's disease.
- ❖ Most patients present with nonspecific symptoms, typically in adulthood.

Case Description

First Presentation: A 19-year-old female with PMHx of depression presented to a hospital with shortness of breath, nausea, and vomiting. At that time, a diagnosis of pneumomediastinum secondary to hyperemesis was made. Her symptoms were assumed secondary to Ziprasidone that she was then taking. Following discharge, patient was readmitted to ED with continued nausea, vomiting, and 20-pound weight loss. In ED she was found to be in DKA and was admitted to ICU with glucose level of >500 mg/dL and Hg A1c 7.1%.

Following treatment, patient was released and referred to Capital Health endocrinology clinic.

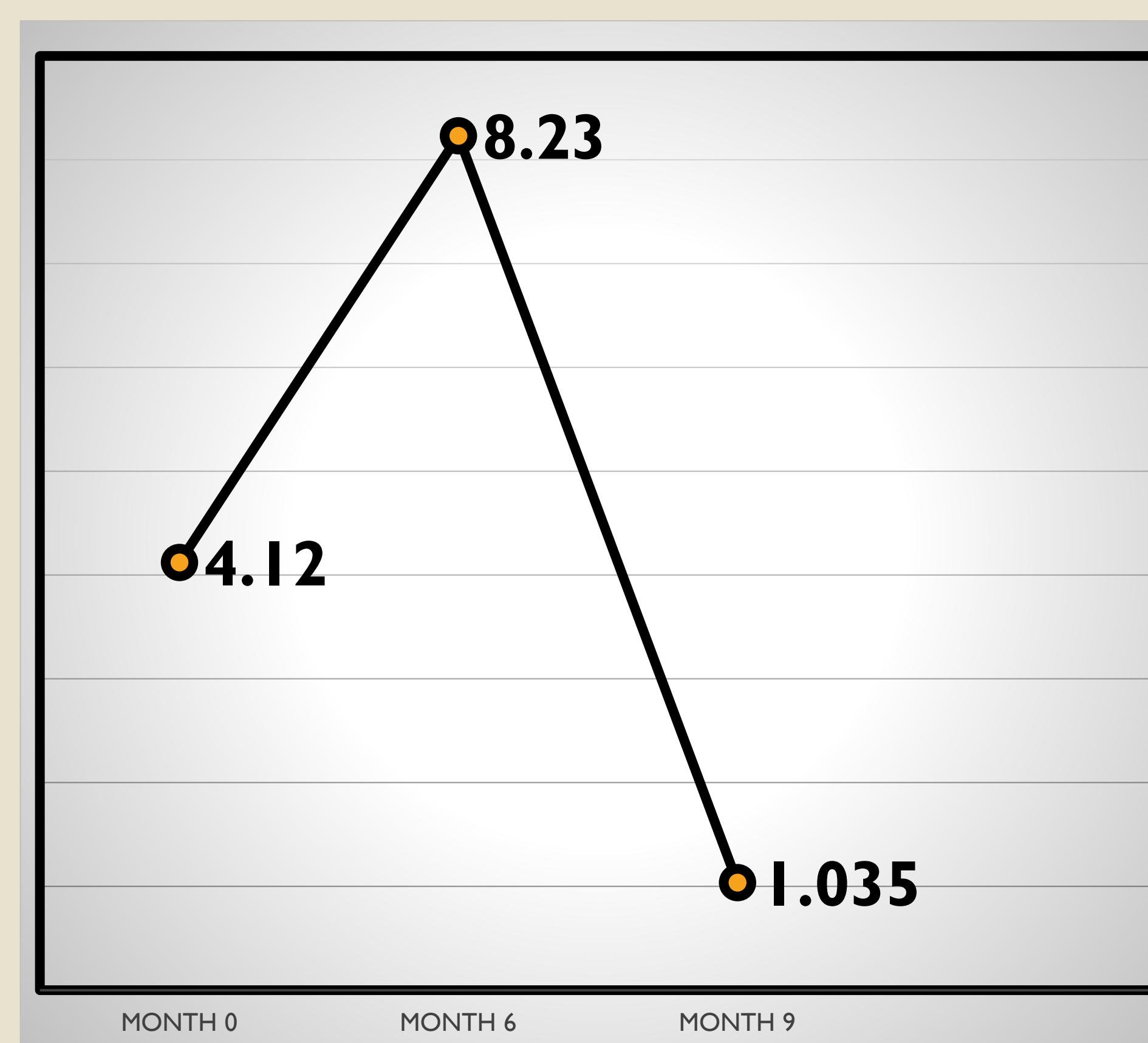
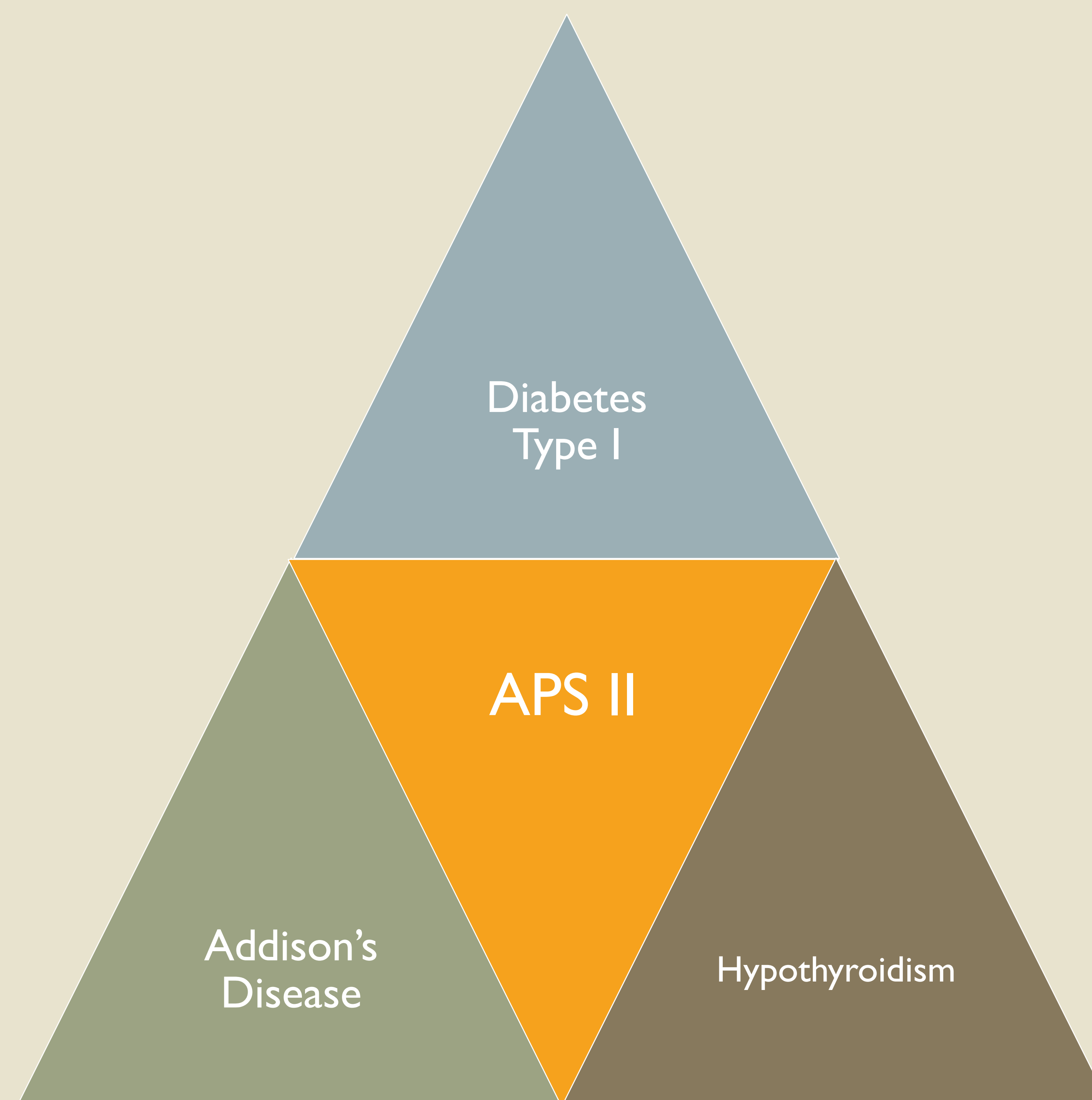
Initial Laboratory findings in endocrinology clinic, 3 months after insulin therapy started:

- ❖ IA2 65+ U/mL
- ❖ Insulin Ab 39 uu/mL
- ❖ Anti-GAD Ab 27 uu/mL
- ❖ TSH 4.1 uIU/mL
- ❖ CMP Normal
- ❖ Hg A1c 6.3%
- ❖ C-peptide < 0.1

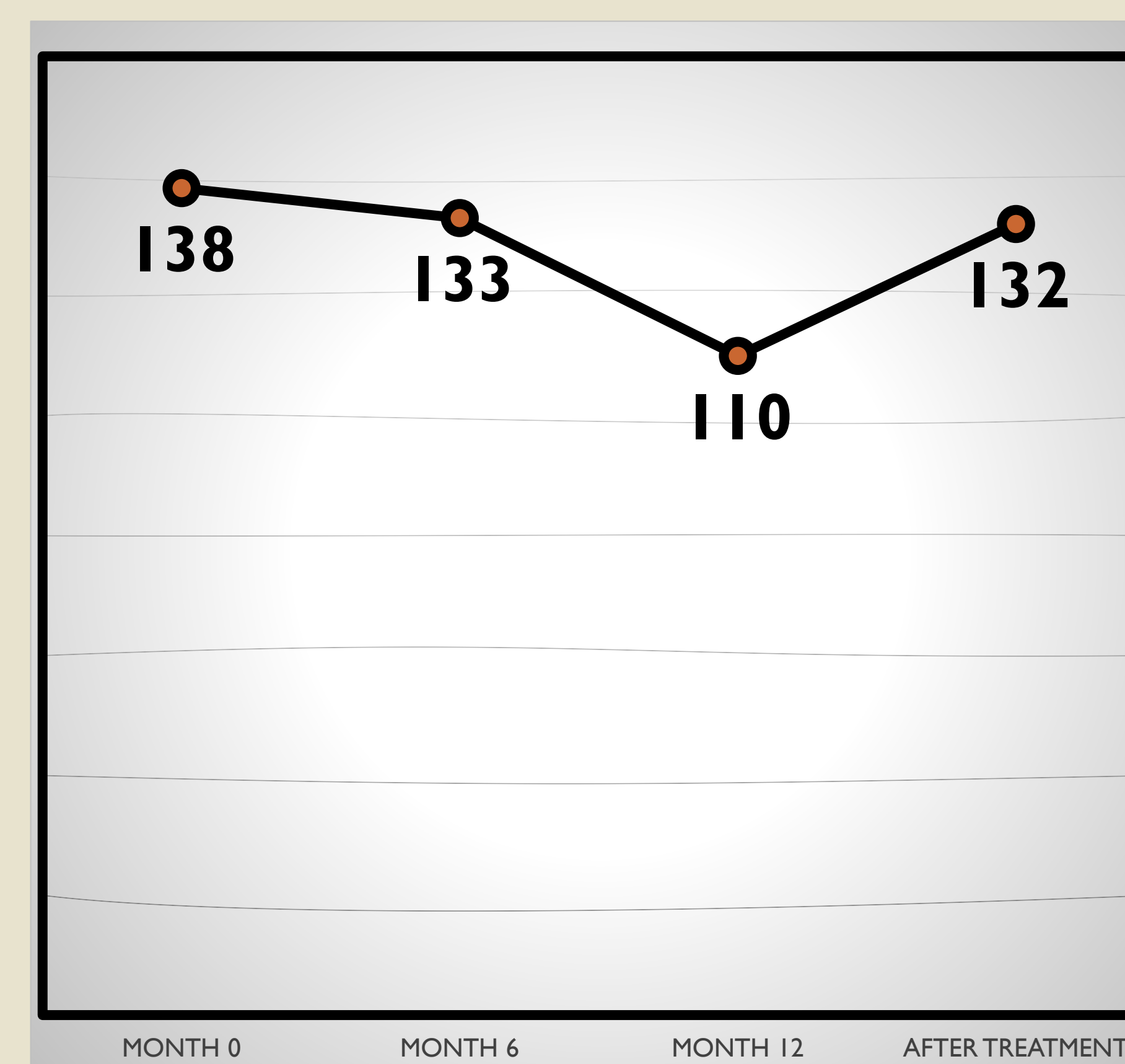
Approximately one year after, patient started complaining of severe fatigue and was subsequently diagnosed with hypothyroidism with underlying lab results:

- ❖ TSH 8.23 uIU/mL
- ❖ Free T4 0.92 ng/dL
- ❖ TPO 27 IU/mL

Despite hypothyroidism treatment her fatigue continued. CMP showed sodium 133 mEq/l and bicarbonate 17 mEq/l.



TSH changes within a year (uIU/mL)



NA level changes within 1.5 year (mEq/l)

Final Diagnosis

Six months later, patient was admitted to a psychiatric hospital with psychiatric symptoms.

Shortly thereafter, patient was transferred for medical treatment for continued nausea and vomiting. **Her labs were as follows:**

- ❖ Sodium 100 mEq/l
- ❖ Potassium 6.5 mEq/l
- ❖ Bicarbonate 12 mEq/l
- ❖ Anion gap 19
- ❖ Glucose 157 mg/dl

Stat cortisol and ACTH were 1.3 mg/dL and 332 pg/mL, respectively.

Patient was diagnosed to be in adrenal crisis and was admitted to ICU. She was immediately started on Fludrocortisone and IV Hydrocortisone and IV fluid for hyponatremia. She was subsequently discharged with full resolution of her psychiatric features.

Upon discharge, her diagnosis was APS II.

Discussion

❖ This case was a great example of APS II. To summarize: a 19-year-old female presented with severe intractable nausea, vomiting, and weight loss. She was initially diagnosed with Type 1 diabetes and DKA. She was subsequently diagnosed with hypothyroidism a year later during her routine check ups. Six months later, she developed psychiatric symptoms. Her sodium level was 100 mEq/l and potassium was 6.5 mEq/l. She was admitted in ICU with diagnosis of adrenal crisis and subsequent diagnosis of APS II.

❖ We should keep this disease in mind when we have a patient with T1DM or adrenal insufficiency.

❖ Frequent visits, vital checks, complete metabolic panel, and routine antibody screening tests including GAD antibodies, anti-adrenal antibodies, and TPO antibodies help in diagnosing this syndrome earlier.

❖ We also should be mindful of psychiatric features in a patient. We should first try to rule out medical causes before diagnosing a patient with psychiatric disease as profound hyponatremia can cause acute psychosis.