

# A Rare Cause of Syndrome of Inappropriate Antidiuretic Hormone

Mutlu Niyazoglu<sup>1</sup>, Esra Hatipoglu<sup>2</sup>, Burcugul Kaya<sup>1</sup>, Sadi Gundogdu<sup>3</sup>

<sup>1</sup> Division of Endocrinology, Department of Internal Medicine, Istanbul Research Hospital, Istanbul, Turkey

<sup>2</sup> Division of Endocrinology, Department of Internal Medicine, Edirne Government Hospital, Edirne, Turkey

<sup>3</sup> Division of Endocrinology and Metabolism, Department of Internal Medicine, Cerrahpasa Medical School, University of Istanbul, Istanbul, Turkey

## INTRODUCTION

Acute intermittent porphyria (AIP) is an autosomal dominant disorder resulting from partial deficiency of the heme biosynthetic enzyme porphobilinogen deaminase.

## CASE REPORT

- A 17 year-old female
- Recurrent progressive abdominal pain
- Darkening in urine colour
- She was on lansoprazol and metaclopramide, initiated 2 days earlier.
- She did not have additional personal or relevant family history.
- Physical examination did not reveal any pathologic finding.

Table 1. Laboratory findings

	Patient values	Normal values
Glucose	mg/dl 84	70-110
Urea	mg/dL 14	17-43
Creatinin	mg/dL 0.6	0.5-0.9
<b>Na</b>	<b>mmol/L 103</b>	136-146
K	mmol/L 3.6	3.5-5.1
<b>Cl</b>	<b>mmol/L 76</b>	101-109
Total protein	g/dL 6.9	6.6-8.3
ALT	U/L 21	0-35
Triglyceride	mg/dl 46	0-150
<b>CK</b>	<b>U/L 281</b>	0-145
TSH	IU/ml 3.1	0.3-5.6
Cortisol	mcg/dL 34	6.7-22.6

Table 2. Urine sediment

	Patient values	Normal values
<b>Erythrocyte</b>	<b>11 p/Hpf</b>	0-2
<b>Leucocyte</b>	<b>60 p/Hpf</b>	0-2
<b>Nitrite</b>	<b>±</b>	-

## EUVOLEMIC HYPONATREMIA

	Patient values	Normal values
Sodium in spot urine	95 mmol/L	70-110
Urine osmolarity	490 mOsm/kg	17-43
Plasma osmolarity	230 mOsm/kg	0.5-0.9

- She was diagnosed with *syndrome of inappropriate ADH*.

• Plasma Na level was gradually increased up to 133 mmol/L with infusion of %0.3 NaCl solution.

• Chest X ray, cranial MRI and abdominal ultrasonography did not reveal any abnormality.

• Based on her history of periodic abdominal pain and dark urine porphyria was suspected.

• **24-hour urine porphobilinogen : 19.7 mg/24 hr (N: 0-1.6)**

• **Total porphyrin : 646 ug/24 hr (N: 0-100).**

• She did not have any cutaneous lesions.

• With the laboratory findings and her personal history she was diagnosed with **INAPPROPRIATE ADH SYNDROME SECONDARY TO AIP.**

• The acute attack of AIP was taken under control with glucose loading and antibiotherapy for urinary tract infection.

## CONCLUSIONS

• It is important not only to treat syndrome of inappropriate ADH, but also to address any underlying condition.

• Diagnosis and management of AIP can be challenging

