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Olgu Sunumu / Case Report

Compulsive Water Drinking Resulting in Hyponatremia: A Pimozide Case

Hiponatremi ile Sonuçlanan Kompülsif Su İçme: Bir Pimozid Olgusu

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Abstract

Pimozide is an antipsychotic can cause side effects such as tremor, rigidity, dystonia, akathisia, gynecomastia. Another rare side effect is psychogenic polydipsia and subsequent hyponatremia. In this case report, we discussed the polydipsia-hyponatremia syndrome associated with pimozide, which is not currently preferred due to cardiac side effects. This case illustrates the risk of water intoxication in antipsychotic-treated patients with non-psychiatric care and emphasizes the interest of regular ionic control in such patients.

Keywords: Pimozide, hyponatremia, side effect, antipsychotic

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Pimozid, tremor, rijidite, distoni, akatizi, jinekomasti gibi yan etkilere neden olabilen bir antipsikotiktir. Diğer bir nadir yan etkisi psikojenik polidipsiyi takiben ortaya çıkan hiponatremi tablosudur. Bu olgu sunumunda, günümüzde kardiyak yan etkileri nedeniyle fazla tercih edilmeyen pimozid ile ilişkili polidipsi-hiponatremi sendromunu tartıştık. Bu olgu, psikiyatrik bakımı yeterli olmayan ve antipsikotik kullanan hastalardaki su zehirlenmesi riskini göstermekte ve bu tür hastalarda düzenli iyon dengesi kontrolünün önemini vurgulamaktadır.

Anahtar Kelimeler: Pimozid, hiponatremi, yan etki, antipsikotik

INTRODUCTION

Pimozide is an antipsychotic diphenylbutyl-piperidine derivative used in the treatment of schizophrenia patients with blocking the dopamine 2 receptors in the nigrostriatal and mesolimbic dopamine pathways. It causes side effects such as tremor, rigidity, dystonia, akathisia, extrapyramidal symptoms, headache, galactorrhea, gynecomastia. Dose-dependent QTc prolongation, risks for ventricular arrhythmias, and sudden death syndrome are some serious side effects of pimozide. Edema, itching, skin rashes are rare side effects. Another rare side effect is psychogenic polydipsia and subsequent hyponatremia (1). In this case report, we discussed the polydipsia-hyponatremia syndrome associated with pimozide, which is not currently preferred due to cardiac side effects.

CASE PRESENTATION

A, 71-year-old male patient was followed up for more than 50 years with the diagnosis of schizophrenia according to Diagnostic and Statistical Manuel of Mental Disorders, Fifth Edition (DSM-5) (2). In the past, the drugs he used were haloperidol, chlorpromazine, quetiapine, risperidone, olanzapine, amisulpride, escitalopram, biperidene, alprazolam. She was admitted to the emergency department with vomiting, abdominal pain, dizziness, self-talk, and agitation. Laboratory findings were as follows: serum sodium (Na) level 117 mEq/L, serum chlorine (Cl) level 92 mEq/L, serum potassium (K) level 4.0 mEq/L, urinary osmolarity 1300 mosmol/kg, urine sodium level 130 mEq/L. It was determined that 8 mg/day pimozide was used before the application. Drug-induced syndrome of

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inappropriate antidiuretic hormone (SIADH) was thought to develop. No medication was used, supportive treatment was given, and clinical symptoms improved after the third day. Serum Na 136 mEq/L was determined in his laboratory. Clozapine was started at 12.5 mg/day. Slowly titrated 200 mg/day dose was reached. White blood cell and electrolytes were in normal limits before discharge. Written informed consent was taken from the patient in order to publish her data. Naranjo Adverse Drug Reaction Probability Scale (NADPRS) score of the patient was 6 (3).

DISCUSSION

Hyponatremia due to drug use is a condition encountered in psychiatric practice. Various cases of polydipsia-hyponatremia due to antidepressants, mood stabilizers and antipsychotic use have been reported (4-6). Potomania, in the words of Koide (7), is either inherited in the psychiatric condition or induced by antipsychotic therapeutics. The author stated that this drug could cause a sensation of thirst and contribute to the development of a potomania, polydipsia-hyponatremia syndrome. Later, Nishimura et al. (8), Leclerq et al. (9) made notifications. There are not many studies about pimozide which is not used frequently because of its cardiac side effects. The mechanism invoked is not yet formally elucidated. Essentially, three hypotheses corresponding to three action sites are identified: action on the pituitary gland with increased synthesis and/or secretion of ADH; action on the kidney, either by direct action or by potentiating the activity of ADH at this level; central action on osmoreceptors with modifications of the threshold of activity leading to a secretion of ADH for an abnormally low level of blood osmolality. High urinary sodium (in our patient: 130 mEq/L) can be found in both etiologies and is certainly not a discriminating factor. The key element of the differential diagnosis appears to be urinary osmolality (1, 7-9). Ethically, it is not considered lawful to continue the administration of pimozide for fear of running the risk of a new episode of hyponatremia in a patient traumatized cranial.

As a result, we report a case of water intoxication with severe hyponatremia resulting in various symptoms in a patient diagnosed with schizophrenia recently treated by pimozide. This case illustrates the risk of water intoxication in antipsychotic-treated patients with non-psychiatric care and emphasizes the interest of regular ionic control in such patients.

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