中文題目：帶狀疱疹腦膜腦炎以抗利尿激素分泌失調症候群為表現

英文題目：Varicella zoster meningoencephalitis presented as SIADH

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Introduction

The syndrome of inappropriate antidiuretic hormone secretion (SIADH) is a disorder of impaired water excretion caused by the inability to suppress the secretion of antidiuretic hormone (ADH). One of the etiologies of SIADH is central nervous system (CNS) disturbances, including stroke, hemorrhage, infection, trauma, and psychosis. We present a rare case of hyponatremia related to varicella zoster meningoencephalitis.

Case Presentation

A 70-year-old man had a history of hypertension with indapamide treatment. He presented to our emergency department because of acute onset left arm weakness with low grade fever and headache. Neurology exam was negative. Emergent brain CT did not show intracranial hemorrhage. Lab data showed serum sodium was 115 mmol/L with low serum osmolality, normal urine osmolality and high urine sodium, normal renal function, normal adrenal and thyroid hormones. SIADH-related hyponatremia was diagnosed. Normal saline and water restriction failed to improve the headache and serum sodium level, and tolvaptan was used. His serum sodium level increased to 130 mmol/L after 2 doses of tolvaptan. Sudden onset of stupor, asymmetric pupils, two episodes of generalized seizure, and respiratory failure happened on the 12^{th} day of admission. Repeated non-enhanced brain CT did not find intracranial lesion. Lumbar puncture was performed and open pressure was 20 cmH2O. Cerebral spinal fluid (CSF) study was cell count: 261/cumm with PMN of 81%, protein: 1731 mg/dL, sugar: CSF 195 / Serum 211 mg/dL. Empiric treatment with antibiotics, antiviral, and anti-tuberculous medications for meningitis were used. Brain MRI revealed diffuse enhancement of the meninges. All culture, virus identification, serology, and cytology of CSF were negative, and real-time PCR of CSF by Centers of Disease Control (CDC) showed positive varicella zoster virus. Nevertheless, coma persisted followed by hypotension, acute kidney injury, and metabolic acidosis and patient expired after his family decided to withdraw life support system.

Discussion

Herpes varicella zoster and concomitant SIADH were rarely reported. In our case, the neurological symptoms and signs were not prominent and patient was treated as thiazide-related hyponatremia and SIADH. Hyponatremia was successfully treated with Tolvaptan; however, full blown of varicella zoster meningoencephalitis led to coma and mortality. Evaluation of the possibility of CNS infection and treatment should be considered in all SIADH individuals with subtle neurological symptoms.