

中文題目:以高血糖高滲透壓症為表現之庫欣氏病

英文題目: A case of Cushing's disease presented with hyperglycemic hyperosmolar syndrome

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Background: Cushing's disease is a disorder of hypercortisolism caused by overproduction of adrenocorticotrophic hormone (ACTH) secreted by pituitary tumor. The initial presentation of Cushing's disease varies, from the classical moon face, buffalo hump, and purple striae to the common signs and symptoms of hypertension, glucose intolerance and weight gain. Physician's awareness about the possibility of Cushing's disease is crucial for early diagnosis, which leads to early treatment to improve life quality as well as decrease morbidity and mortality. Here we described a case of Cushing's disease presented with hyperglycemic hyperosmolar syndrome.

Case report: A 57-year-old female, with hypertension and dyslipidemia for 3 years treated in local clinic, was sent to our emergency department due to generalized seizure attack with conscious change for several minutes. Laboratory data showed hyperglycemia with glucose 886mg/dl, acute renal failure with pre-renal azotemia (BUN/Cr= 39.1/1.67mg/dl), and hyponatremia (Na= 157mmol/L). The calculated blood osmolality was 363mOsm/Kg. Urine routine was negative for ketone body. Newly diagnosed diabetes with hyperglycemic hyperosmolar syndrome (HHS) was impressed. Besides, emergent brain CT showed pituitary macroadenoma compressing the optic chiasm. With standard therapy for HHS, glucose level normalized and dehydration corrected though hypokalemia persisted. A series of hormone survey was arranged for the pituitary macroadenoma accidentally found on brain CT. Although she did not manifest the typical appearance of buffalo hump or purple striae, elevated baseline ACTH and cortisol level were found, which were not suppressed by low-dose dexamethasone suppression test. Thus Cushing's disease inducing diabetes was suspected. She underwent trans-sphenoidal surgery for management.

Discussion: Although HHS is usually seen in newly diagnosed type 2 diabetes, the possibility of other specific type diabetes should always be considered. Owing to the image study performed in advance, we are able to diagnose Cushing's disease soon after admission. The various symptoms/signs for Cushing's disease must keep in mind to help clinicians make an early diagnosis to facilitate appropriate treatment.