

中文題目：命懸一腺：在一個腎上腺轉移性腫瘤併發敗血性休克的病人之腎上腺危象

英文題目：Adrenal Crises in a Patient with Adrenal Metastatic Tumor and Septic Shock

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## Background

Adrenal crisis is an emergent situation that indicates severe adrenal insufficiency. It might be caused by Addison disease, sudden stopping intake of corticosteroid, malignancy, infection, trauma or other physical stress. Symptoms and signs may vary from conscious disturbance, gastro-intestinal upset, refractory hypotension, metabolic acidosis, hypoglycemia, and electrolyte imbalance such as hyponatremia and hyperkalemia.

## Case presentation

A 58 year-old man had history of right renal sarcomatoid carcinoma with liver invasion, s/p right nephrectomy and partial hepatectomy. He came to our ER due to severe weakness for 2 weeks and shortness of breath for 3 days.

On physical examination, his temperature was 36.8°C, pulse rate 141 beats/min, respiratory rate 30 breaths /min , blood pressure 85/51mmHg, and he had poor skin turgor. Laboratory data revealed WBC: 9840/ $\mu$ l, with Neut: 48.4%, elevated Cr from 1.2mg/dl (measured 3 weeks ago) to 4.5mg/dl , Na 131meq/L, K 5.1meq/L, CRP>80mg/L, and pyuria in urine analysis. Under the impression of urinary tract infection with septic shock, he was admitted to the ICU.

After resuscitation with normal saline 2000ml, albumin, and Norepinephrine infusion pump, hypotension was persisted. Finally his blood pressure returned to 112/61mmHg after Methylprednisolone 40mg use.

Followed examinations revealed ACTH level at 11pm was 693.5 pg/ml and Cortisol was 0.78  $\mu$ g/dL , thus adrenal crisis was highly suspected. An abdominal CT arranged for cancer staging showed an enlarged left adrenal gland for about 3.7~4.0 cm, which was considered metastatic tumor from renal sarcomatoid carcinoma.

## Final diagnosis

Adrenal crisis, cancer metastasis and critical illness ( septic shock) related

## Discussion

It is important to start corticosteroid therapy for patients diagnosed as adrenal crisis

and even critical-illness-related corticosteroid insufficiency (CIRCI). CIRCI is a concept that indicates the impairment of Hypothalamic- Pituitary-Adrenal (HPA) axis during critical illness. There are three main pathophysiologic mechanism account for CIRCI : dysregulation of the HPA axis, altered cortisol metabolism and tissue resistance to corticosteroids. Adrenal insufficiency should be ruled out in any acutely ill patient with signs or symptoms potentially suggestive of acute adrenal insufficiency, and treatment of a suspected adrenal crisis should not be delayed by diagnostic measures.

關鍵字：腎上腺腫瘤，腎上腺危象，重大疾病相關之皮質功能不全

Key words : Adrenal tumor, Adrenal crisis, Critical-illness-related corticosteroid insufficiency (CIRCI)