

中文題目：寧靜風暴：甲狀腺風暴併發多重器官衰竭

英文題目：A Case of Silent Thyroiditis Complicated with Thyroid Storm and Multiple Organ Failure

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Background

Thyroid hormones affect and play a critical role in all major organs and systems. Thyrotoxicosis is the clinical syndrome when tissues are exposed to excess thyroid hormone and thyroid storm is a rare and extreme manifestation of thyrotoxicosis. Patients may present with fever, altered mental status, heart failure, gastrointestinal-hepatic dysfunction and may be fatal if left untreated.

Case presentation

A 60 years old man visited our ER due to persisting epigastralgia and nausea for a week. His medical history included chronic heart failure due to coronary artery disease and chronic atrial fibrillation. He had never taken amiodarone or thyroid hormones. At ER, his heart rate was 200 bpm and EKG revealed Af-RVR.

After hospitalization, fever up to 38°C occurred, and followed with cardiogenic shock, respiratory failure, and altered mental status. In addition, acute kidney injury (Cr: 8.0), hepatitis (GOT: 648), and hyperbilirubinemia (total bilirubin: 2.9) developed subsequently.

Thyroid function test were arranged later to evaluate the cause of Af-RVR, which revealed TSH <0.005 uIU/ml, free T4 4.8 ng/dl, anti-TPO 973 U/ml, and normal TRAb level. In addition, the level of procalcitonin was remarkably high (15 ng/mL). After PTU administration, thyroid hormone level declined rapidly. The positive anti-TPO and low level of TRAb supports the impression of silent thyroiditis which is triggered by infection and complicated with thyroid storm.

After PTU, hydrocortisone, anti-arrhythmic agents, in association with mechanical ventilation, IABP, and hemodialysis, the patient was discharged in normal thyroid function without obvious sequela.

Final diagnosis

Silent thyroiditis complicated with thyroid storm and multiple organ failure

Discussion

The etiology of thyroid storm is most commonly associated with Graves' disease

but can occur with other forms of hyperthyroidism and thyrotoxicosis without hyperthyroidism (eg. thyroiditis, radiation, amiodarone, iatrogenic thyroid hormones).

The most common comorbidity of thyroid storm at admission was cardiovascular diseases. Since Burch-Wartofsky Point Scale consists of temperature, CNS, cardiac/ gastrointestinal/ liver dysfunction, all the associated symptoms may be the first manifestation. Therefore, thyroid function should be checked if any suspicion exists.

Notably, the severity and prognosis of thyroid storm is unrelated to the level of TSH and free T4. Treatment should be based upon the clinical condition.

關鍵字：甲狀腺風暴、甲狀腺毒症、多重器官衰竭、心房顫動、心因性休克
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