

中文題目：血清素症候群- 一個罕見的發燒臨床表現

英文題目：Serotonin Syndrome- An Unusual Presentation of Fever: A Case Report and Literature Review

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#### Introduction:

Fever is a common clinical problem. The cause of fever other than infection is a challenge. Here we present a case of serotonin syndrome (SS), with initial presentation of high fever and dyspnea.

#### Case Report:

The 36 y/o male was admitted to our ICU through ER due to high fever(40C) and tachycardia(150/min). He had the initial presentation of very agitated mood, dyspnea, and impaired consciousness level. The agitated state did not improve after IV Ativan use. Lab data showed just leukocytosis. We performed intubation for airway protection. IV dormicum and even Nimbex were prescribed temporarily for agitation. When we contact with his family through his cellphone, we found that he is a amphetamine abuser. His urine test for amphetamine also shows positive. Clinically, serotonin syndrome due to amphetamine overuse is impressed. His consciousness gradually improved and we performed extubation. He was discharged smoothly.

#### Discussion:

The diagnosis of serotonin syndrome is made through clinical condition, aka Hunter Criteria (Table 1). Agents precipitating serotonin syndrome include Amphetamines, Cocaine, Meperidine (Demerol<sup>®</sup>), Tramadol, Dextromethorphan(Medicon<sup>®</sup>), SSRIs, SNRIs, MAO inhibitors, Fentanyl, Lithium, etc. The differential diagnosis of serotonin syndrome includes neuroleptic malignant syndrome (NMS), malignant hyperthermia, anticholinergic toxicity, meningitis, and encephalitis.

The treatment of SS includes discontinuing serotonergic agents, sedation with benzodiazepine and other supportive care. In severe case, intubation for airway protection and even paralysis with neuromuscular blocking agent should be considered. The antidote for SS is **cyproheptadine** with initial dose of 12 mg, followed by 2 mg every two hours until clinical response is seen.

Table 1. Hunter Criteria for Serotonin Syndrome:

**A serotonergic agent** and meet ONE of the following conditions:

- *Spontaneous clonus.*
- *Inducible clonus PLUS agitation or diaphoresis.*
- *Ocular clonus PLUS agitation or diaphoresis.*
- *Tremor PLUS hyperreflexia.*
- *Hypertonia PLUS temperature above 38°C PLUS ocular clonus or inducible clonus.*