P-29 Untreated Sheehan's syndrome case with adrenal crisis and influenza A virus infection

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Introduction: Sheehan's syndrome (SS) results from severe hemorrhage during or after delivery. We report a case of long-term untreated SS leading to adrenal crisis associated with influenza A virus infection.

Case Presentation: A 50-year-old Japanese woman with a long-term history of infertility, cold intolerance, hoarseness, fatigue, appetite loss, and constipation was transferred to our ICU with consciousness loss, fever, and hypotension. She had consciousness disturbance with fever 2 years before and fetal death with hemorrhagic shock during delivery 18 years before. She was not aware of the need for a cortisol replacement therapy. Examinations showed a low body mass index, temperature at 37.4°C, blood pressure at 102/63 mmHg (under noradrenaline infusion), irregular heart rate at 93 beats/min, respiratory rate at 25 breaths/min, and symmetric deep tendon reflexes 1+/1+ with prolonged relaxation phases. She had an enlarged painless thyroid, pale dry skin, and thin eyebrows, without axillary hair. She was in a state of stupor and intubated. Laboratory findings included WBC 5,570 /µL, Hb 8.7 g/dL, MCV 89.2 fl, CRP 8.37 mg/dL, Na 137 mEq/L, K 4.3 mEq/L, Cl 111 mEq/L, FPG 111 mg/dL, cortisol $\leq 0.9 \,\mu$ g/dL, and positive influenza A antigen. Hormone loading tests showed a delayed or partial reaction to LH, FSH, and PRL and no-reaction to GH after 60 min. ACTH and TSH were responsive, but fT4 remained low, and cortisol did not respond to the ACTH loading test. Brain MRI revealed an empty sella. We diagnosed her as having anterior hypopituitarism from SS with adrenal crisis and influenza A virus infection. We prescribed cortisol and levothyroxine replacement and discharged her on hospital day 21.

Discussion: Our patient led a relatively normal life without cortisol replacement, but the influenza virus infection led to shock. An influenza A virus pandemic puts untreated SS patients at mortal risk.