

A Case of Hyponatremia due to Hypopituitarism in a patient with a history of HFRS 25 years ago

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Introduction: Hemorrhagic fever with renal syndrome (HFRS) is an acute viral infectious disease caused by genus Hantavirus. Ischemic damage of pituitary could be provoked by hypotension and vasospasms during the acute phase of HFRS, but often remaining unrecognized because of subtle clinical manifestations. In this case report, we introduce a 60-year-old male patient with hyponatremia due to panhypopituitarism after HFRS. **Case:** A 60-year-old man with a history of HFRS 25 years ago visited the emergency room with a chief complaint of vomiting lasting 4 days. He was suffering from headache, nausea, vomiting, decreased consciousness and showed continuous decrease of sodium level (serum sodium 115 mmol/L). The patient didn't have steroid use and was on medication for hypothyroidism for 10 years. A rapid ACTH stimulation test was performed; the result indicated secondary adrenal insufficiency, with a basal cortisol level of 0.83 µg/dL and a maximal increase to 2.0 µg/dL. Thyroid function tests showed lower normal free T4 level (0.95 ng/dL) and decrease of T3 (0.69 ng/mL) with TSH suppression (0.09 µIU/mL), suggesting the possibility of central hypothyroidism. Correspondingly, thyroglobulin antibody and thyroid peroxidase antibody were both negative. Basal pituitary function testing was performed and the defect of other anterior pituitary hormones such as testosterone (0.35 ng/mL), and prolactin (1.7 ng/mL) was revealed. Sellar MRI showed empty sella without any mass lesions (figure 1). The patient was recovered after hydrocortisone substitution and subsequently discharged on hydrocortisone, levothyroxine, and testosterone. **Conclusion:** Panhypopituitarism is an extremely rare complication of HFRS. Ischemic damage could be caused by hypotension and vasospasms, and hemorrhagic damage could be caused by thrombocytopenia and thrombopathy. In conclusion, if clinicians do not doubt, diagnosis of hypopituitarism after Hantavirus infection may be delayed. This complication as endocrine disturbances and electrolyte imbalance can severely affect a patient's mortality and morbidity.

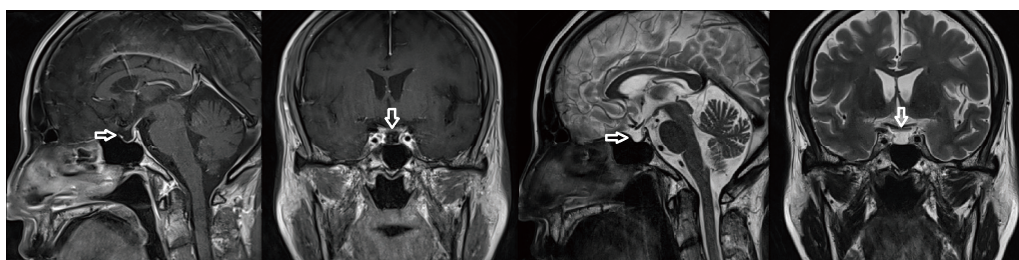


Figure 1. Sagittal and coronal view on magnetic resonance image. Arrow showing empty sella turcica filled with CSF.