

Hypothyroidism with Hypodipsic Hypernatremia in a Dog

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Materials and methods: A 4-year-old male, Labrador retriever weighing 27 kg was presented with abrupt nervous signs including hypodipsia, circling, and head pressing.

Results: The rectal temperature was within reference range, and the heart and respiratory rates were 63 beats/min and 24 breaths/min, respectively. Serum biochemical analyses revealed hypernatremia (168 mmol/L; reference range 141-152 mmol/L), hyperchloremia (131 mmol/L; reference range 105-115 mmol/L) and elevated creatine kinase (1165 IU/L; reference range 42-530 IU/L). The hypotonic fluid therapy (0.45% sodium chloride solution with 2.5% dextrose) was applied to correct the electrolyte imbalances. However, these signs were not alleviated. The patient relapsed into hypernatremia and hyperchloremia when the fluid therapy was ceased. In serum thyroid profile, total and free thyroxines and thyrotropin concentrations were low. The result of detection test of autoantibodies against thyroglobulins was positive. On the basis of these findings, this dog could be made a diagnosis of hypothyroidism.

Clinical relevance: When the dog was administered with levothyroxine sodium, his nervous signs were alleviated within the 1st week of treatment and hypodipsia was also resolved.

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