

티오펜탈투여후 발생한 이상칼륨혈증

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Severe Dyskalemia Induced by the Thiopental Infusion, Case Report

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Barbiturate coma therapy has been used for the management of intracranial hypertension caused by cerebral hemorrhage. A fatal side effect, severe dyskalemia, can also occur. We reported that the level of serum potassium remained within normal range without fatal arrhythmia. A 44-year-old man was admitted for traumatic subdural hematoma of both frontal lobes. He underwent an operation to remove the hematoma. On observation after the operation, the cerebral edema progressed, and the intracranial pressure increased. We therefore performed a frontal lobectomy and prescribed thiopental. After 17 hrs of thiopental infusion, the hypokalemia continued to worsen. When the potassium level reached 2.8 mEq/L, the administration of thiopental was stopped. The patient's heart rate slowed, and electrocardiography showed a changes consistent with the hypokalemia. During the hypokalemic period, we administered potassium (160 mEq/L in total). At 9 hrs after the discontinuation of the thiopental infusion, the level of potassium began to increase. At 38 hrs after the discontinuation of the thiopental infusion, the potassium level stabilized at 5.15 mEq/L. In the present case, we supplied a relatively low dose of potassium despite the patient's hypokalemia and did not observe any rebound hyperkalemia. This phenomenon was not observed in other cases. These observations indicate that hypokalemia in head trauma has many potential causes. In future studies, more factors that could affect thiopental metabolism should be analyzed to allow a more accurate approach to finding the causes of hypokalemia.

Key Words: 티오펜탈, 이상칼륨혈증, 합병증
Thiopental, Dyskalemia, Complication