

A patient in whom liver damage improved after changing total parenteral nutrition to enteral nutrition

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Abstract

After starting total parenteral nutrition for the patients who became the fast by mechanical ileus, the syndrome of inappropriate antidiuretic hormone secretion (SIADH) appeared. We set a fluid volume limit and changed the patient's parenteral nutrition regime to enteral nutrition. We confined a full dose of the moisture to 1300~1600ml. When serum Na became than 130mEq, GFO and the digestion state nutrient preparation and a semi-digestion nutrition agent (MA-8) were given. As a result, a mild improvement in liver damage was observed. It was thought that the enteral nutrition placed fewer demands on blood vessels and the liver than total parenteral nutrition.

Introduction

The syndrome of inappropriate antidiuretic hormone secretion (SIADH) is characterized by excessive release of antidiuretic hormone from the posterior pituitary gland or another source. The increase in blood volume (hypervolemia) often results in dilutional hyponatremia in which the plasma sodium levels are lowered and total body fluid is increased. Although the sodium level is low, SIADH is brought about by an excess of water rather than a deficit of sodium. The causes of inappropriate ADH are attributable either to paraneoplastic secretion or to ADH from the posterior pituitary and hypothalamus in response to other, so-called 'nonosmotic' stimuli. [1] There is now a long list of potential causes of SIADH in addition to pulmonary carcinoma and brain metastases, including drugs, a number of CNS disorders, pulmonary abnormalities, other malignancies, and idiopathic forms. [2] We report on a patient who fasted because of a mechanical ileus, and who experienced the syndrome of inappropriate antidiuretic hormone secretion with complications.

A case report and discussion

The patient was 42-year-old woman, 156cm tall, 41.1 kg in weight, BMI16.8 (February, 2015). She was hospitalized with quadriplegia due to late effects of head trauma in Tokushima Hospital. Ileus paralytic occurred in April, 2015. The patient's serum Na had decreased to 121mEq/l after a fast. She had a diagnosis of syndrome of inappropriate antidiuretic hormone secretion, and water restriction was implemented. The serum Na level was improved by the water restriction, but worsened by the resumption of the diet. We changed the nutrition regime to enteral nutrition from total parenteral nutrition. We gave two packs of GFO per day. We started administration of digestion state nutrient preparation on July 7. We finally gave MA-8, which is a semi-digestion nutrition agent, at 1,000 ml/day (1000kcal). The patient's weight was 41.1 kg (BMI16.9), which was low, in February. It rose to 45.4 kg (BMI18.7) in June when we resumed TPN. Her weight became 49.8 kg (BMI20.5) in September. The

serum Na was maintained above 130mEq/l. The hepatogenous enzyme which had worsened was gradually improved. It became the physiological dietary intake by having changed the nutrient to the intubation. This was thought to lead to an improvement in the state of the patient.

References

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