

A PRELIMINARY STUDY OF THIAMINE STATUS IN NORTHEASTERN THAI CHILDREN WITH ACUTE DIARRHEA

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Abstract. This study is a preliminary determination of thiamine status in children with diarrhea and metabolic acidosis admitted to hospital. Children with diarrhea (N = 14; age 2 m-6 yr) were divided into 2 groups according to anion gap type; group 1 (21.4%) with a normal anion gap (5.5 ± 5.2 mmol/l) and group 2 (78.6%) with a wide anion gap (21.2 ± 5.2 mmol/l). Blood was taken on the day of admission to determine thiamine and lactate levels. Sixty-six point seven percent of patients in group 1 had a normal lactate level (1.5 ± 0.8 mmol/l) and 33.3% had a high lactate level (2.2 mmol/l); none had thiamine deficiency (TPPE < 20%). High lactate (3.5 ± 1.4 mmol/l) was found in 54.5% of group 2 and thiamine deficiency was observed in 18.2% of this group. In conclusion, no thiamine deficiency was noted in patients with normal anion gap, but thiamine deficiency was not uncommon in patients with a wide anion gap, regardless of lactic acidosis.

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