

Journal

The journal of metabolism and clinical nutrition 13(2):123-131,2010

Title

A study on the vitamin intakes and the urinary excretion of vitamins in diabetic patients.

Author

Tomiho Fukui¹⁾, Eri Imai¹⁾, Tsutomu Fukuwatari¹⁾, Hiromi Iwakawa²⁾, Satoshi Ugi³⁾, Hiroshi Maegawa³⁾, Atsunori Kashiwagi³⁾, Katsumi Shibata¹⁾

Affiliation

- 1) Human Cultures Graduate School, The University of Shiga Prefecture
- 2) Division of Clinical Nutrition, Shiga University of Medical Science
- 3) Division of Endocrinology and Metabolism, Department of Medicine, Shiga University of Medical Science

Abstract

We evaluated the nutritional status of 10 kinds of vitamins (except for vitamins A, D, and K) through the simultaneous investigation of the intakes of vitamins and the concentrations of blood and the urinary excretion of vitamins in diabetic patients. The concentrations of blood vitamin B₁, vitamin B₂, vitamin B₁₂, folates, and niacin were lower in diabetic patients than in healthy control even though the intakes of the vitamins were almost the same as in the recommended dietary allowance and the above. On the contrary, the urinary excretion of the vitamins was tendency higher than in diabetic patients than in healthy control. From these results, diabetic patients have characteristic metabolic phenomenon that the concentrations of blood vitamins were lower but the urinary excretion of the vitamins was higher compared with healthy control peoples.

Key words

urine, blood, vitamins , clearance, diabetes mellitus