Refeeding Syndrome: Report of a Case

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Refeeding syndrome is an under diagnosed, but clinically important syndrome, and can be defined as acute electrolyte abnormalities, fluid retention, and dysfunction of various organ systems in malnourished patients undergoing refeeding, whether orally, enteraly, or parenterally. The hallmark biochemical feature of refeeding syndrome is hypophosphatemia. The syndrome almost always develops during the early stages of refeeding. To avoid the development of this potentially lethal condition, nutritional support in patients at risk should be increased gradually over a period of several days while assuring adequate amounts of vitamins and minerals.

**Key words:** hypophosphatemia, refeeding syndrome

**Introduction**

Refeeding syndrome is a potentially fatal complication of the nutritional management of severely malnourished patients. Starved or severely malnourished patients can undergo life-threatening fluid and electrolyte shifts following the initiation of aggressive nutritional support therapies. This phenomenon is known as ‘refeeding syndrome’ and can occur in patients receiving oral, enteral, or parenteral nutritional support.

The true incidence of refeeding syndrome is unknown, probably due to the lack of a universally accepted definition. In a study of 10,197 hospitalized patients, the incidence of severe hypophosphatemia was 0.43%, with malnutrition being one of the strongest risk factors. In a well designed prospective cohort study of a heterogeneous group of patients in intensive care units, 34% of patients experienced hypophosphatemia soon after feeding was started (mean: 1.9 days, standard deviation: 1.1 days). We present the case of a starved malnourished patient with liver cirrhosis and upper gastrointestinal bleeding who developed polymorphic ventricular tachycardia (VT) related to severe electrolyte imbalance after parenteral feeding.

**Case Report**

This 64-year-old man presented with tarry stools of several days’ duration. His medical history included alcohol and hepatitis B virus-related liver cirrhosis and gastric ulcer. This patient had chronic alcoholism for 30 years, with consumption of sorghum liquor of more than 750ml/day, without an