The needs of vitamin in medical ill patients

Luciana Budiati Sutanto
Department of Nutrition, Faculty of Medicine, Christian University Krida Wacana

Abstract: Nutrition Virtual Symposium 2022 - Speaker

Vitamin deficiency is often appeared in medical ill patients. The vitamin deficiency can be deficiency favouring disease development, inadequacy or deficit worsening the condition, or deficiency as a result of disease. Recommendation number 1 from ESPEN micronutrient guideline 2022 is adequate amounts of all essential trace elements and vitamins shall be supplied to all patients receiving medical nutrition from the beginning of the period of nutritional support. Following by recommendation 2: micronutrient supplements shall be provided orally or enterally if this can be done safely and effectively. Parenteral administration (intravenous or intramuscular) is indicated when absorption is inadequate or rapid correction is required.

Vitamin deficiency as a result of some diseases i.e chronic intestinal failure: vitamin B2, B7, B9, B12, A, D, E; chronic (atrophic) gastritis: vitamin B9, B12, C, D; inflammatory bowel diseases: vitamin B1, B6, B12, A, D, E, K; liver diseases: vitamin B12, A, D, E; obesity post bariatric surgery: vitamin A, D, E, K, B1, B9, B12, C; and renal failure (chronic): vitamin B1, B6, B9, K, D.

Standard enteral nutrition contains adequate amounts of micronutrients at a dose of 1500 kCal. But in international studies, patients generally only get about 1000 kCal or below the prescribed target, so it is very possible that the vitamin and mineral needs are not being met. In patients who are not receiving adequate caloric intake from enteral nutrition, an additional enteral or parenteral of vitamins & minerals at the start of feeding may be considered, especially if the patient has poor intake history.

Keywords: vitamin deficiency, parenteral nutrition, enteral nutrition, micronutrient

Corresponding author:
Dr. dr. Luciana B. Sutanto, MS, SpGK(K)
Department of Nutrition, Faculty of Medicine, Christian University Krida Wacana
Email: lcsutanto@yahoo.com