

5th European Nutrition and Dietetics Conference

June 16-18, 2016 Rome, Italy

Nutrients of concern following bariatric surgery: Vitamin D and B complex vitamins

Carolyn E Moore

Texas Woman's University, USA

Nutrient deficiencies are common following bariatric surgery. Vitamin D deficiency occurs following 50-80% of Roux-en-Y gastric bypass (RYGB) procedures and is common with sleeve gastrectomy. Moreover, low circulating levels of vitamin D are independently associated with increased body mass index and fat mass in adults. Gastric restriction reduces food intake and increases the risk of B vitamin deficiencies following RYGB and sleeve gastrectomy. The B complex vitamins are water soluble and therefore not stored in the body to a large extent which necessitates a continuous supply. Neurological complications associated with vitamin B12, thiamine and folate deficiencies have been estimated to occur in up to 16% of bariatric surgery cases resulting in compromised neurological function presenting within weeks to months following bariatric surgery. Few prospective studies have evaluated the appropriate supplementation dosages following bariatric surgery. This study assessed the response to 3 months supplementation of vitamin D and B complex vitamins in women following sleeve gastrectomy. Daily supplementation with 2,000 IU of vitamin D3 and 1,500 mg calcium significantly increased 25-hydroxy vitamin D concentrations and vitamin D deficiency decreased from 61% at baseline to 26% at 3 months ($p < 0.005$). However, several women remained vitamin D deficient and more aggressive supplementation may be indicated. B vitamin supplementation resulted in a 48% increase of vitamin B12, modest increase of serum folate and no reduction of thiamine concentrations. Thus, nutritional screening and appropriate dietary supplementation to prevent nutrient deficiencies and improve long term outcomes following bariatric surgery is warranted.

Biography

Carolyn E Moore has completed her PhD and Postdoctoral studies from the University of California at Los Angeles. She is an Associate Professor in the Department of Nutrition and Food Sciences at Texas Woman's University in Houston and a Registered Dietitian. She has published more than 30 papers in reputed journals and has focused research efforts in the area of vitamin D and chronic disease.

cmoore8@mail.twu.edu

Notes: