

Abstract

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Incidence of vitamin deficiency after laparoscopic Roux-en-Y gastric bypass in a university hospital setting.

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OBJECTIVE: Vitamin deficiency after gastric bypass surgery is a known complication. The purpose of this study was to measure the incidence of vitamin deficiency after laparoscopic Roux-en-Y gastric bypass in a university hospital setting.

METHODS: All patients who underwent laparoscopic Roux-en-Y gastric bypass from January 2002 to December 2004 and completed a 1- and 2-year follow-up after surgery were selected. Of the total 493 patients, 318 (65%) had vitamin results at 1-year follow-up. Of the 366 eligible for the 2-year follow-up, 141 (39%) had vitamin results. Patients were further grouped based on gender, race, and Roux limb length, and incidence of vitamin deficiencies were studied.

RESULTS: The incidence of vitamin A (retinol) deficiency was 11 per cent, vitamin C was 34.6 per cent, vitamin D25OH was 7 per cent, vitamin B1 was 18.3 per cent, vitamin B2 was 13.6 per cent, vitamin B6 was 17.6 per cent, and vitamin B12 was 3.6 per cent 12 months after surgery. There was no statistical difference in the incidence of vitamin deficiencies between 1 and 2 years. In univariate and multivariate logistic regression of 1- and 2-year follow up, black patients (vitamins A, D, and B1 for 1 year and B1 and B6 for 2 years) and women (vitamin C at 1 year) were more likely to have vitamin deficiencies. Vitamin deficiencies after laparoscopic Roux-en-Y gastric bypass are more common and involve more vitamins, even those that are water soluble, than previously appreciated. Black patients tend to have more deficiencies than other groups.

CONCLUSIONS: The bariatric surgeon should be committed to the long-term follow-up and care of these patients. Further prospective and randomized studies are necessary to provide appropriate guidelines for supplementation.

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