

Iron Deficiency After Weight-Loss Surgery

Iron deficiency is a common, delayed consequence of malabsorptive weight-loss surgery, especially in younger women.

Bariatric surgery can reduce the impact of obesity-associated comorbidities, but it increases the risk for iron deficiency (ID) and iron deficiency anemia (IDA).

To determine the incidence of ID and IDA following weight-loss surgery, Canadian investigators conducted a single-center, retrospective cohort study of 388 patients (83% women) who underwent bariatric surgery in 2012. Of these patients, 73% received Roux-en-Y bypass surgery, 25% received sleeve gastrectomy, and 2% received a duodenal switch. Baseline ID and IDA were reported in 12% and 6% of patients, respectively. At 6 months' follow-up, 41% of patients were taking oral iron, and 49% were taking iron-containing prenatal vitamins.

Key findings at a mean follow-up of 31 months included the following:

- 43% of patients developed ID (defined by ferritin <30ng/mL), and 16% developed IDA; 6% required intravenous iron.
- Risk factors for ID included malabsorptive surgery (such as Roux-en-Y bypass) and low baseline ferritin.
- Younger age, baseline anemia, and low baseline ferritin increased risk for IDA in a multivariable analysis.

COMMENT

Although limited by a single-center, retrospective design, this study provides important information regarding the incidence of ID and IDA following gastric bypass surgery. A key finding is that ID and IDA are delayed consequences — the projected 5-year cumulative incidence was 68% and 38%, respectively. This finding emphasizes the need for patients undergoing malabsorptive weight-loss surgery to receive long-term follow-up, with consistent evaluation of their iron stores. Patients undergoing malabsorptive weight-loss surgeries are at risk for other vitamin/mineral deficiencies, which require routine lab testing, as well (B12/folate, copper). In this study, the authors acknowledge the possible underestimation of the need for intravenous iron. The efficacy of oral iron in the setting of malabsorptive IDA was not reported but was expected to be low in the setting of malabsorption.

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