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One year study on comparison of Pre and Postoperative Nutritional status between Mini Gastric Bypass, Sleeve gastrectomy and Roux en Y Gastric Bypass in Indian population
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Category: Outcomes from Bariatric Surgery

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Background

Nutritional deficiencies are a concern after any bariatric surgery procedure. Aim of study was to assess prevalence of nutritional deficiencies and compare differences in nutritional complications among three major bariatric procedures in Indian population.

Methods

Between April 2014 and April 2015, 98 patients (m:f=35:63), with an average Body Mass Index of 48.05 (27–60) kg/m² and average age of 38 years (18–61) were prospectively analysed. Laparoscopic or SILS Mini Gastric Bypass (L/SILS MGB) was performed in 52 patients, Roux en Y gastric bypass (L/SILS RYGB) in 13 patients and laparoscopic/ SILS sleeve gastrectomy (L/SILS SG) in 33 patients. The patients were examined before surgery and at 1, 3, 6, 12 and 24 months postoperatively using standard protocol.

Results

Prior to surgery, 57% of patients had at least one deficiency, 23% of whom had vitamin D deficiency. Multivitamin supplements were systematically prescribed after surgery for 90 days. Despite supplementation, deficiencies after L/SILS SG were zinc, iron, and vitamin B12; post L/SILS RYGB, vitamin B12, calcium, vitamin D and zinc deficiencies were noted; after L/SILS MGB were iron, protein, zinc, folic acid and b12; Vitamin B1 deficiency was noted in 2 patients.

Conclusions

Postoperatively, L/SILS RYGB and L/SILS MGB showed almost same results, with more vitamin B1 and iron deficiency in Post MGB patients. After L/SILS SG, zinc, iron, vitamin B12, folate deficiency was more frequent. Sleeve gastrectomy procedure induces lesser deficiencies when compared to MGB and RYGB. RYGB and MGB was more effective than SG in resolution of obesity-related comorbidities, SG was a safer procedure with reduced rate of nutritional deficiencies and complications. Nutritional deficiencies can be prevented if multidisciplinary team regularly assists the patient.

Keywords

sleeve gastrectomy, mini gastric bypass, Morbid obesity, Nutrient deficiencies, Roux - en Y - Gastric bypass

