

Complications after bariatric surgery: A multicentric study of 11,568 patients from Indian bariatric surgery outcomes reporting group

Ramen Goel, Amrit Manik Nasta, [...], and Surendra Ugale

Abstract

Background:

Complications after bariatric surgery are not uncommon occurrences that influence the choice of operations both by patients and by surgeons. Complications may be classified as intra-operative, early (<30 days post-operatively) or late (beyond 30 days). The prevalence of complications is influenced by the sample size, surgeon's experience and length and percentage of follow-up. There are no multicentric reports of post-bariatric complications from India.

Objectives:

To examine the various complications after different bariatric operations that currently performed in India.

Materials and Methods:

A scientific committee designed a questionnaire to examine the post-bariatric surgery complications during a fixed time period in India. Data requested included demographic data, co-morbidities, type of procedure, complications, investigations and management of complications. This questionnaire was sent to all centres where bariatric surgery is performed in India. Data collected were reviewed, were analysed and are presented.

Results:

Twenty-four centres responded with a report on 11,568 bariatric procedures. These included 4776 (41.3%) sleeve gastrectomy (SG), 3187 (27.5%) one anastomosis gastric bypass (OAGB), 2993 (25.9%) Roux-en-Y gastric bypass (RYGB) and 612 (5.3%) other procedures. Total reported complications were 363 (3.13%). Post-operative bleeding (0.75%) and nutritional deficiency (0.75%) were the two most common complications. Leaks ($P = 0.009$) and gastro-oesophageal reflux disease ($P = 0.019$) were significantly higher in SG, marginal ulcers in OAGB ($P = 0.000$), intestinal obstruction in RYGB ($P = 0.001$) and nutritional complications in other procedures ($P = 0.000$). Overall, the percentage of complications was higher in 'other' procedures (6.05%, $P = 0.000$). There were 18 (0.16%) reported mortalities.

Conclusions:

The post-bariatric composite complication rate from the 24 participating centres in this study from India is at par with the published data. Aggressive post-bariatric follow-up is required to improve nutritional outcomes.

Keywords: Bariatric surgery, complications, multicentric study, one anastomosis gastric bypass, Roux-en-Y gastric bypass, sleeve gastrectomy

INTRODUCTION

Bariatric surgery remains the single most effective long-term treatment option for obesity and its co-morbidities. The apprehension of possible complications deters even suitable candidates from undergoing a life-saving procedure, though it is widely accepted that experienced bariatric surgeons and centres of excellence have low complication rates. Further, the reporting format of complications varies across different centres and procedures. National trend analysis of bariatric-related complication rates and associated morbidity is essential to provide appropriate scientific information to physicians and the general population.

The 2016 International Federation for Surgery in Obesity and Metabolic Disorders (IFSO) report[1] included a total of 14,021 bariatric procedures from India, of which 13,765 (98.17%) were primary. Sleeve gastrectomy (SG) ($n = 8627$, 62.7%) was the most commonly performed procedure followed by one anastomosis gastric bypass (OAGB) ($n = 2834$, 20.6%), and Roux-en-Y gastric bypass (RYGB) ($n = 2108$, 15.3%). Despite such high volumes, the reporting of surgical outcomes and multicentric post-bariatric complication data is lacking. A recent multicentre study by Baig *et al.*[2] on weight regain showed a high incidence of anaemia (13.9%) and hypo-albuminaemia (5.9%) after OAGB. On the other hand, Nasta *et al.*[3] showed no leaks, bleeds or surgical mortality after SG or RYGB. Jammu and Sharma[4] showed a leak rate of 1.5% in SG, 0.3% in RYGB and 0% in OAGB. They reported hypo-albuminaemia of 13% after OAGB in patients with biliopancreatic limb >250 cm.