Evaluation of Revision Procedures for Roux-en-Y Gastric Bypass: A Comparative Analysis in Indian Patients

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- NO DISCLOSURES

Table 1: Prerevision baseline characteristics

Characteristics	Values
Age at revision (years), mean	46±7.4
Sex (male/female), *n*	3/18
Previous surgery	Laparoscopic RYGB in all 21 cases (100%)
Interval between primary and revision surgery (months), mean	65.33±33.5
Body weight at revision (kg), mean	102.52±16.34
BMI at revision (kg/m^2), mean	39.52±5.68
Comorbidities at revision, *n* (%)	
Diabetic	28.5% (6/21 patients), 14.25% (3/21 patients) on insulin
Hypertension	28.5% (6/21 patients)
Hypothyroid	14.25% (3/21 patients)
OSA	9.55% (2/21 patients)
Joint pains	4.77% (1/21 patients)
CKD	4.77% (1/21 patients)

BMI: Body mass index, RYGB: Roux-en-Y gastric bypass, CKD: Chronic kidney disease, OSA: Obstructive sleep apnea

Table 2: Indications for revision bariatric surgery

Indications	Percentage (numbers)
Weight regain or inadequate weight loss	71.44% (15/21) patients
Metabolic reasons	14.28% (3/21) patients
Metabolic reasons along with inadequate weight loss	14.28% (3/21) patients

Table 3: Type of revision procedures after Roux-en-Y gastric bypass

Procedure	Percentage (numbers)
Increase BPL by 100 cm	57.1% (12/21) patients
Banded RYGB with increase BPL by 100 cm	28.57% (6/21) patients
Gastric pouch revision with revision GJ and increase BPL by 100 cm	14.28% (3/21) patients

RYGB: Roux-en-Y gastric bypass, BPL: Biliopancreatic limb, GJ: Gastrojejunostomy

Table 4: Short-term surgical outcomes of revision surgery

Outcomes	Values
Operating time (min), mean	93.57±32.29
Length of hospital stay (days), mean	2.29±0.46
Need for re-operation, *n* (%)	1 patient (4.76) needed due to obstruction
Complications, *n* (%)	
Obstruction	1 patient (4.76)
Postoperative nausea and vomiting	2 patients (9.52)
Duration of follow-up (months)	6, 12, 36

so pouch trimming revision of gastrojejunostomy and increasing the BPL was done. The addition of restrictive components and mal-absorption results in more sustained %EWL and %EBMIL at a high-volume center.

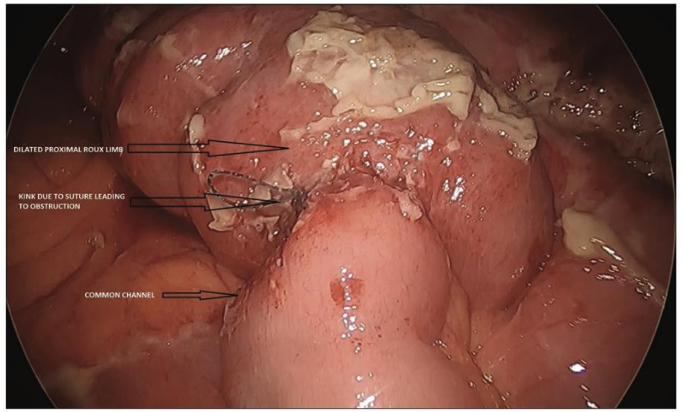

Figure 1: Obstruction due to kink caused by suture at jejuno-jejunostomy in revision case

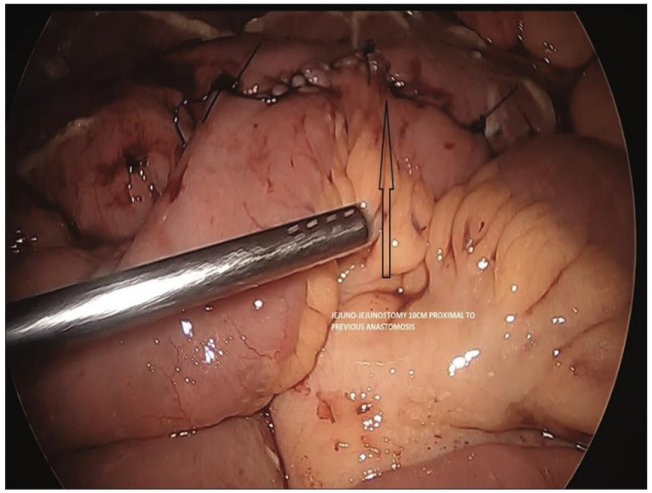

Figure 2: Revision of jejuno-jejunostomy 10 cm proximal to obstructed anastomosis

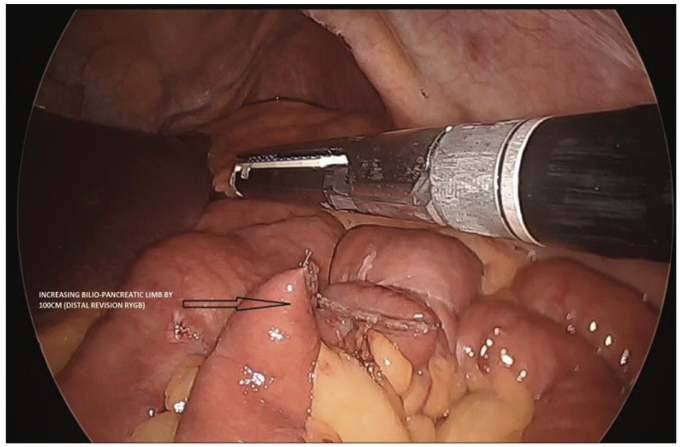

Figure 3: Increasing biliopancreatic limb by 100 cm

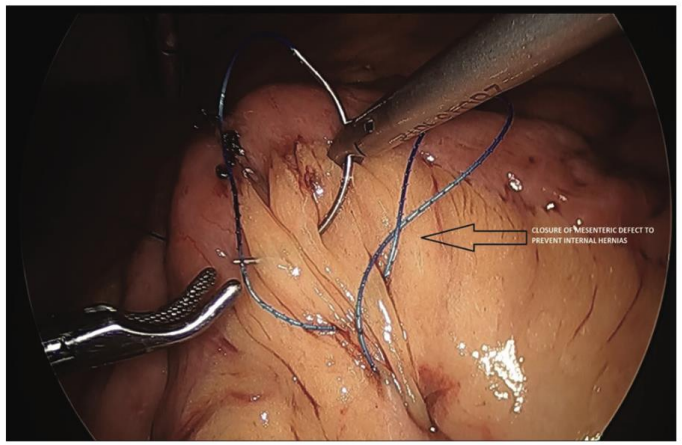

Figure 4: Closure of mesenteric defects to prevent internal herniation


PLACEMENT OF BAND AROUND STOMACH POUCH
IN PREVIOUS RYGB

Table 5: Weight parameters following the revision surgeries

Time point (months)	Numbers of patients (%)	Body weight (kg), mean	BMI (kg/m^2), mean	Percentage EWL, mean	Percentage EBMIL, mean
6	100	85.76±11.06	33.07±4.15	39.47±13.76	45.89±16.2
12	85.71	86±4.14	33.11±4.05	43.70±13.70	51.44±13.43
36	42.86	91±9.18	34.5±8.81	41.14±8.48	44.89±8.17

BMI: Body mass index, EWL: Excess weight loss, EBMIL: Excess BMI loss

Table 6: Comorbidities resolution after revision surgery

Time point (months)	Diabetes, *n* (%)	Hypertension, *n* (%)	Other comorbidities, *n* (%)
6	50% (3/6 patients) complete remission 50% (3/6 patients) on OHA from insulin	50% (3/6 patients) remission	100% (3/3 patients) remission for hypothyroidism, (2/2 patients) OSA, (1/1 patient) joint pain. 1 patient had CKD. Average creatinine level decreased
12	50% (3/6 patients) complete remission 50% (3/6 patients) on OHA from insulin	100% (6/6 patients) remission	100% (3/3 patients) remission for hypothyroidism, (2/2 patients) OSA, (1/1 patient) joint pain 1 patient had CKD. Average creatinine level decreased
36	66.7% (4/6 patients) complete remission 33.3% (2/6 patients) on OHA from insulin	100% (6/6 patients) remission	100% (3/3 patients) remission for hypothyroidism, (2/2 patients) OSA, (1/1 patient) joint pain 1 patient had CKD. Average creatinine level decreased

Table 7: Outcomes after three different revision procedures

	Percentage EWL at 6 months	Percentage EWL at 12 months	Percentage EWL at 36 months	Percentage EBMIL at 6 months	Percentage EBMIL at 12 months	Percentage EBMIL at 36 months
Group A						
Only lengthening of BPL was done	31.86	31.53	29.41	38.74	41.48	28.62
Group B						
Placement of band over the stomach pouch along with lengthening of BPL	47.69	52.39	47.69	53.46	57.46	54.76
Group C						
Trimming of the gastric pouch with revision of GJ in addition to lengthening of BPL	53.49	62.79	46.51	59.3	69.27	51.41

BPL: Biliopancreatic limb, EWL: Excess weight loss, GJ: Gastrojejunostomy, BMI: Body mass index, EBMIL: Excess BMI loss

Original Article

Revision of Roux-en-Y-Gastric Bypass – Our Experience in Indian Patients

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THANK YOU

- In our study, banded RYGB with BPL lengthening had better outcomes, though a statistical significance could not be established due to small sample size and retrospective nature of the study.
- However, long-term follow-up is required to compare outcomes and device a tailored strategy for type of revision surgery required as per indications.