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Here is a collection of abstracts of published papers related to Bariatric surgery in the journal *Mini-invasive Surgery* (www.misjournal.net) from Jan 2019 to present, including paper types, titles, full-text links, DOI, abstracts and keywords, which are more convenient for you by clicking the titles in Table of Contents/entering keywords in look-up function to quickly search papers you want to read. We hope this collection is a good assistant for you. Your recommendation of this collection to your friends or colleagues is highly appreciated. If you have any questions in using this collection, please feel free to contact our editorial office.

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Bariatric surgery

1. Review

Reflux and bariatric surgery: a review of pre-operative assessment and post-operative approach

[HTML](#) [PDF](#)

Copy here to cite this article: Hanson MN, Dennis S, Altieri MS, Andalib A. Reflux and bariatric surgery: a review of pre-operative assessment and post-operative approach. *Mini-invasive Surg* 2022;6:9.

<http://dx.doi.org/10.20517/2574-1225.2021.144>

Abstract

Bariatric surgery is the cornerstone of treatment for severe obesity. In evaluating patients for such procedures, surgeons must be aware of the potential complications, including post-operative gastroesophageal reflux disorder (GERD). This review article outlines the current literature regarding GERD prior to and after bariatric surgery. It aims to establish a framework for evaluating and managing GERD in both the pre- and post-operative setting for common bariatric procedures such as the sleeve gastrectomy, Roux-en-Y gastric bypass, adjustable gastric band, duodenal switch type procedures as well as one-anastomosis gastric bypass. This review also outlines the latest recommendations from major international bariatric societies for screening prior to surgery, the incidence of GERD after each respective procedure and a summary of current trends in the management of post-operative GERD after bariatric surgery.

2. Review

Revisional bariatric surgery: a review of workup and management of common complications after bariatric surgery

[HTML](#) [PDF](#) [VIDEO](#)

Copy here to cite this article: Lyons W, Omar M, Tholey R, Tatarian T. Revisional bariatric surgery: a review of workup and management of common complications

after bariatric surgery. *Mini-invasive Surg* 2022;6:11.

<http://dx.doi.org/10.20517/2574-1225.2021.140>

Abstract

With the rising prevalence of obesity, there has been a steady rise in the number of bariatric surgeries performed worldwide. As expected, there has also been an increase in the number of revisional surgeries performed to manage acute and chronic postoperative complications. This review will discuss the major complications that can arise from the most common bariatric surgeries, their diagnosis, medical management, and potential revisional surgical options.

3. Original Article

Laparoscopic Roux-en-Y gastric bypass for excess weight and diabetes: a multicenter retrospective cohort study in China

[HTML](#) [PDF](#) [VIDEO](#)

Copy here to cite this article:

Yang W, Zhu S, Cheng Z, Zhang N, Wu L, Chen Y, Yang J, Yu S,

Yang T, Ding D, Waggoner JR, Schwiers ML, Fegelman EJ, Wang C. Laparoscopic Roux-en-Y gastric bypass for excess weight and diabetes: a multicenter retrospective cohort study in China. *Mini-invasive Surg* 2021;5:11.

<http://dx.doi.org/10.20517/2574-1225.2021.06>

Abstract

Aim: The aims of this study were to better understand the outcomes of Roux-en-Y gastric bypass (RYGB) surgery in patients across multiple hospitals in China along with patients with type 2 diabetes mellitus (T2DM) and to explore the potential preoperative predictors of diabetes outcomes after RYGB.

Methods: This was a retrospective cohort study in Chinese patients who underwent laparoscopic RYGB at five Chinese hospitals from April 2009 to December 2014 and

returned for follow-up approximately one-year post-surgery. The STROCSS guideline checklist was applied.

Results: In total, 130 patients underwent RYGB: 85 males and 45 females; age, 43.4 ± 11.3 years; and preoperative body mass index (BMI), 33.1 ± 9.0 kg/m². Of those, 103 (79.2%) had T2DM duration of 6.6 ± 4.7 years and pre-RYGB HbA1c of $8.1 \pm 1.9\%$. Among the patients with T2DM, glycemic control (HbA1c < 7.0%) increased from 28.7% before surgery to 79.3% at 12 months post-procedure, with a concurrent reduction in the use of anti-hyperglycemic agents, including a reduction in insulin requirement from 55.4% to 27.0%. The percentage of excess weight loss was $-42.8 \pm 44.2\%$. Among 71 patients with T2DM and data about remission status, 14 (19.7%) achieved T2DM remission at 12 months post-surgery. Age and duration of T2DM were lower in the remission group, while baseline BMI and weight were higher compared with the non-remission group.

Conclusion: RYGB may be effective for weight loss and T2DM control in Chinese patients, and outcomes are consistent with the literature in Western populations. Younger patients with T2DM and with a higher BMI pre-surgery and shorter duration of T2DM were more likely to achieve T2DM remission.

4. Editorial

Metabolic and bariatric surgery

[HTML](#) [PDF](#)

Copy here to cite this article: Jones DB. Metabolic and bariatric surgery. *Mini-invasive Surg* 2021;5:4. <http://dx.doi.org/10.20517/2574-1225.2020.116>

5. Original Article

Hair loss in sleeve gastrectomy subjects: effects of designed supplements for nutritional deficiencies

[HTML](#) [PDF](#)

Copy here to cite this article: Kheirvari M, Anbara T. Hair loss in sleeve

gastrectomy subjects: effects of designed supplements for nutritional

deficiencies. *Mini-invasive Surg* 2021;5:40.

<http://dx.doi.org/10.20517/2574-1225.2021.66>

Abstract

Aim: Hair loss is a common complication after bariatric surgery that is related to nutritional deficiencies. The aim of this study was to evaluate the prevalence of micronutrient deficiencies preoperative and postoperative and their relationship with hair loss 12 months after bariatric surgery (BS) in those younger and older than 45 years of age, with or without a prescription for supplements.

Methods: In this prospective study, performed between 2018 and 2020 on patients undergoing laparoscopic sleeve gastrectomy (LSG) (not generally BS) in our hospital, the patients were categorized into two main groups of with or without a prescription for supplements. In addition, each main group was divided into age subgroups. Then, complete clinical and biological nutritional assessments were performed in these four subgroups, before and after surgery. Hair loss related to nutritional deficiencies were systematically recorded at 12 months after LSG.

Results: In total, 1224 patients undergoing LSG were enrolled into the study. Nutritional deficits in some variables were even tripled after LSG in both the younger and older groups without a prescription for supplements. In the group with a prescription for supplements, nutritional deficiencies declined postoperatively. The postoperative deficits in the group without a prescription for supplements were frequently in iron (41.83% for younger group; 44.44% for older group) and zinc (42.15% for younger group; 43.79% for older group). In the group with a prescription for supplements, hair loss was less common than in the group without a prescription for supplements postoperatively.

Conclusion: Preoperative monitoring of the combination of several nutritional deficits could be used to identify patients at risk and prevent the onset of deficiencies and

their consequences after BS. Identification and correction of micronutrient deficiencies were essential for treating hair loss.

6. Editorial

Robotic surgery: is it really different from laparoscopy? a critical view from a robotic pioneer

[HTML](#) [PDF](#)

Copy here to cite this article: Gagner M. Robotic surgery: is it really different from laparoscopy? a critical view from a robotic pioneer. *Mini-invasive Surg* 2021;5:12.

<http://dx.doi.org/10.20517/2574-1225.2021.23>

7. Editorial

Metabolic and bariatric surgery: diabetes - a decade of discovery

[Full-Text](#) [PDF](#)

Copy here to cite this article: Veilleux E, Lutfi R. Metabolic and bariatric surgery: diabetes - a decade of discovery. *Mini-invasive Surg* 2020;4:4.

<http://dx.doi.org/10.20517/2574-1225.2020.01>

8. Original Article

Computed tomography-3D-volumetry: a valuable adjunctive diagnostic tool after bariatric surgery

[Full-Text](#) [PDF](#)

Copy there to cite this article: Stier C, Parmar C, Koschker AC, Bokhari M, Stier R, Chiappetta S. Computed tomography-3Dvolumetry: a valuable adjunctive diagnostic tool after bariatric surgery. *Mini-invasive Surg* 2020;4:18.

<http://dx.doi.org/10.20517/2574-1225.2019.75>

Abstract

Aim: After bariatric surgery, a variety of complaints may arise. Identification of the

causes of such symptoms is often challenging due to the postoperatively modified anatomy. While standard examinations with upper endoscopy and upper gastrointestinal series might miss the three-dimensional anatomic nature of the problem, quantitative three-dimensional computed tomography volumetry (3D-CT) of the upper gastrointestinal tract offers a novel, adjunctive examination, revealing the detailed anatomy. The aim of this study was to analyse the clinical value of 3D-CT in post-bariatric patients.

Methods: Prospective data of 279 patients, who underwent 3D-CT due to complications after different bariatric procedures, were retrospectively analysed. Directly before examination, the surgical-modified stomach was distended with an effervescent-powder. CT images were 3D-reconstructed and, further, gastric volume was calculated.

Results: In total, 279 patients were examined. Time between surgery and examination was significantly different between Roux-en-Y gastric bypass ($n = 168$) (54.3 ± 38.6 months) and sleeve gastrectomy ($n = 78$) (27.8 ± 21.7 months) ($P = 0.0001$). Others, less numerous, but included procedures were one-anastomosis/mini gastric bypass ($n = 11$), and dated procedures, such as the vertical banded gastrostomy. The examination allowed calculation of the gastric volume, and the 3D-reconstructions depicted accurately the pivotable anatomic details of the modified upper gastrointestinal tract with 360° view. As a robust result, patients with a higher gastric volume showed more weight regain after sleeve gastrectomy.

Conclusion: 3D-CT is easy-to-perform and facilitates identification of the post-surgical three-dimensional gastric anatomy. It represents a valuable additional diagnostic tool in post-bariatric patients with post-procedural complications. 3D-CT might be an important preoperative tool prior to revisional surgery. In addition, this is the only exact and reproducible calculation of the gastric volume.

9. Review

Endoscopic approach for the treatment of bariatric surgery complications

[Full-Text PDF](#)

Copy there to cite this article: Ardila-Gatas J, Pryor A. Endoscopic approach for the treatment of bariatric surgery complications. *Mini-invasive Surg* 2020;4:16. <http://dx.doi.org/10.20517/2574-1225.2019.69>

Abstract

The incidence of bariatric surgery is increasing exponentially. The number of bariatric surgeries performed in the United States has significantly increased in the past decades. Complications of bariatric surgery can present days to years postoperatively. Advances in endoscopic procedures and technology has made it possible to address many complications endoscopically. We describe the most common complications after bariatric surgery and the endoscopic treatment options available to date.

10. Review

Gender disparities in weight loss surgery

[Full-Text](#) [PDF](#)

Copy there to cite this article: Aly S, Hachey K, Pernar LIM. Gender disparities in weight loss surgery. *Mini-invasive Surg* 2020;4:21. <http://dx.doi.org/10.20517/2574-1225.2019.57>

Abstract

Obesity is a growing epidemic affecting more than one third of the United States' population. It has detrimental effects on an individual's health and is associated with myriad negative outcomes including increased mortality. It also poses a substantial financial burden on the healthcare system. Weight loss surgery is an effective way of treating obesity with tremendous positive outcomes. Most patients who undergo bariatric surgery lose a significant amount of weight, reverse most of their comorbidities, and enjoy an improved quality of life. However, fewer than one percent of patients eligible for bariatric surgery actually undergo treatment.

Furthermore, there exists a considerable gender disparity, with women comprising 80% of those patients who undergo bariatric surgery, despite equal obesity rates across genders. Many barriers exist between obese patients and weight loss surgery including misconceptions among patients and primary care providers regarding the perceived risk of surgery. This is in addition to numerous other psychosocial and cultural factors that may have contributed to and precipitated the existing gender imbalance. This review aims to highlight barriers to patients undergoing bariatric surgery and examine factors leading to the gender disparity that exists.

11. Review

Vitamin deficiencies and prevention methods after bariatric surgery

[Full-Text](#) [PDF](#)

Copy there to cite this article: Çalapkorur S, Küçükkatirci H. Vitamin deficiencies and prevention methods after bariatric surgery. *Mini-invasive Surg* 2020;4:15. <http://dx.doi.org/10.20517/2574-1225.2019.51>

Abstract

Bariatric surgeries have proven to be an effective treatment for morbid obesity to reduce the excess body weight of the individuals. Besides weight loss and improvement in metabolic parameters, bariatric surgery procedures can also cause some complications. One of the most common complications observed after bariatric surgery is vitamin deficiencies. Vitamin deficiencies occur due to malabsorptive surgery in patients with absorption disorder and restrictive surgery in patients with inadequate intake. These deficiencies may be accompanied by systematic and neurological findings. Therefore, regular follow-up of patients after bariatric surgery is crucial. If any vitamin deficiency is detected in the patient clinically or biochemically, it is recommended to eliminate this deficiency through supplementation.

12. Review

Bariatric endoscopy: current primary therapies and endoscopic management of complications and other related conditions

[Full-Text](#) [PDF](#)

Copy there to cite this article: Castro M, Gueron AD. Bariatric endoscopy: current primary therapies and endoscopic management of complications and other related conditions. *Mini-invasive Surg* 2020;4:47.

<http://dx.doi.org/10.20517/2574-1225.2020.14>

Abstract

The steady increase in bariatric surgery has led to room for innovation. Endoscopy has become an important tool for evaluation, diagnosis, management of complications, and even for primary bariatric interventions. Leaks are the most feared complication and new endoscopic therapies have been developed such as septotomy, double-pigtail stents, and endoscopic vacuum therapy. Additionally, primary bariatric endoscopic procedures are gaining popularity and the new procedures include intragastric balloons, stoma reduction, aspiration therapy, among others. The altered anatomy and reoperation increase the risk of complications after bariatric surgery, especially when managing conditions like achalasia, gastroparesis, and cholelithiasis. Per-oral endoscopic myotomy, per-oral pyloromyotomy, and endoscopic ultrasound-guided transgastric endoscopic retrograde cholangiopancreatography provide a less invasive approach to address these conditions. This narrative review article intends to expose current endoscopic therapies for the management of primary bariatric procedures, complications and related conditions.

13. Review

Early lessons on assembling a center for bariatric endoscopy

[Full-Text](#) [PDF](#)

Copy there to cite this article: Mlabasati J, Bilal M, Cohen J. Early lessons on assembling a center for bariatric endoscopy. *Miniinvasive Surg* 2020;4:42.

<http://dx.doi.org/10.20517/2574-1225.2020.32>

Abstract

As the obesity epidemic continues to grow, the need for effective management strategies is more important than ever. There are several medical, endoscopic, and surgical management options available. The last decade has seen a rise in endoscopic bariatric interventions. These minimally invasive therapies can be used for patients who do not qualify or are unwilling to undergo bariatric surgery. Currently, there is limited formal training in bariatric endoscopy. In this commentary, we discuss our experience in establishing a center for bariatric endoscopy at a large academic medical center.

14. Review

Current management of gastroesophageal reflux disease in the obese population - a review of the literature

[Full-Text](#) [PDF](#)

Copy there to cite this article: Fontan FM, Carroll RS, Thompson D, Lehmann RK, Smith JK, Nau PN. Current management of gastroesophageal reflux disease in the obese population - a review of the literature. *Mini-invasive Surg* 2020;4:29. <http://dx.doi.org/10.20517/2574-1225.2020.09>

Abstract

The current obesity pandemic has a clear impact on quality of life and health resource utilization; hence it has become a significant global health concern. Multiple obesity-related comorbidities such as gastroesophageal reflux disease (GERD) are frequently observed among this patient population. GERD is a complex disease with multiple elements contributing to the failure of the anti-reflux barrier. If left untreated, the excessive reflux of gastric contents into the esophagus can give rise to multiple complications such as esophagitis, strictures, metaplasia, and cancer. When surgical treatment of GERD is indicated in an obese patient, adequate preoperative evaluation

and treatment are critical to achieve durable resolution of symptoms attributed to GERD as well as other obesity related comorbidities. To maximize the potential for a positive outcome, when suitable, gastric bypass surgery rather than sleeve gastrectomy or fundoplication should be strongly considered in the obese patient with GERD.

15. Technical Note

Technical details of laparoscopic sleeve gastrectomy

[Full-Text PDF](#)

Copy there to cite this article: Aktokmakyan TV, Gungor O, Sumer A. Technical details of laparoscopic sleeve gastrectomy. *Mini-invasive Surg* 2020;4:23. <http://dx.doi.org/10.20517/2574-1225.2019.72>

Abstract

Obesity is an expanding threat globally. Several surgical procedures have been developed to achieve the best outcomes in obesity. One of them is laparoscopic sleeve gastrectomy that was first applied in 1999 to initiate weight loss in overweight patients. Laparoscopic sleeve gastrectomy is a restrictive bariatric technique consisting of subtotal partial vertical gastrectomy with the preservation of the pylorus, and a gastric tube is created as a continuation of the esophagus along the lesser curvature with the resection of the fundus, corpus, and antrum. Although this technique is routinely-applied all over the world, the technical details are still controversial. This review aims to define the tips and tricks for the sleeve gastrectomy technique and discuss the controversial subjects in this technique.

16. Technical Note

One anastomosis gastric bypass and esojejunostomy in rats: surgical techniques

[Full-Text](#) [PDF](#)

Copy there to cite this article: M'Harzi L, Bruzzi M, Chevallier JM, Douard R. One anastomosis gastric bypass and esophageal anastomosis in rats: surgical techniques. *Mini-invasive Surg* 2019;3:27. <http://dx.doi.org/10.20517/2574-1225.2019.22>

Abstract

One anastomosis gastric bypass (OAGB) is a popular bariatric procedure, but controversies remain regarding biliary reflux and the potential risk of cancer. Esophageal anastomosis (EA) in rats is a validated and reproducible model for the development of metaplasia [Bartlett's esophagus (BE)] and esophageal adenocarcinoma (EA) with a minimal exposure of 12 to 20 weeks. We are analyzing the risks of BE and EA in an OAGB rat model and comparing these with the EA rat model. The purpose of this study is to describe our OAGB and EA techniques in rats that we used to evaluate biliary reflux and share our experience with scientists and the bariatric community. These operations are short and simple procedures with acceptable morbidity.

17. Case Report

Use of an intra-aortic balloon pump during laparoscopic sleeve gastrectomy

[Full-Text](#) [PDF](#)

Copy there to cite this article: Narvaez A, Perez JE, Castro M, Seymour KA. Use of an intra-aortic balloon pump during laparoscopic sleeve gastrectomy. *Mini-invasive Surg* 2020;4:31. <http://dx.doi.org/10.20517/2574-1225.2020.22>

Abstract

Heart transplant is the primary treatment for end-stage heart failure; however, morbid obesity limits candidacy. Bariatric surgery performed in patients with advanced heart failure improves eligibility for heart transplantation. This is the first report of an

intra-aortic balloon pump used during laparoscopic sleeve gastrectomy. A patient with morbid obesity and non-ischemic cardiomyopathy was referred for weight loss surgery prior to evaluation for heart transplantation. An intra-aortic balloon pump was placed for aggressive diuresis and cardiovascular support during laparoscopic sleeve gastrectomy. The patient did not suffer any complications or require readmission. The use of an intra-aortic balloon pump as a mechanical circulatory system provided a safe laparoscopic sleeve gastrectomy in a patient with advanced heart failure.

18. Case Report

Hearing voices and strange noises after sleeve gastrectomy

[Full-Text](#) [PDF](#)

Copy there to cite this article: Larionova E, Jalisi SM, Jones DB. Hearing voices and strange noises after sleeve gastrectomy. *Mini-invasive Surg* 2020;4:59. <http://dx.doi.org/10.20517/2574-1225.2020.49>

Abstract

Patulous eustachian tube (PET) dysfunction is a rare complication of weight loss, which can be easily misdiagnosed. We present a case of PET dysfunction after laparoscopic sleeve gastrectomy. A 36-year-old Caucasian female with Class III morbid obesity (131 kg, BMI 46.6 kg/m²) successfully underwent laparoscopic sleeve gastrectomy. At her postoperative follow-up appointment six months later, her weight dropped to 96 kg and she complained of severe autophony (hearing of self-generated sounds), leading to anxiety and insomnia. She was initially misdiagnosed with a sinus infection by her primary care provider and was started on antibiotics. She was subsequently seen by an otolaryngologist who diagnosed her with PET. Weight loss can be a predisposing factor for PET. Our patient did not notice onset of symptoms of PET until significant weight loss (35 kg, 59.5% EWL).

19. Technical Note

One anastomosis gastric bypass and esojejunosomy in rats: surgical techniques

[Full-Text](#) [PDF](#)

Copy there to cite this article: M'Harzi L, Bruzzi M, Chevallier JM, Douard R. One anastomosis gastric bypass and esojejunosomy in rats: surgical techniques. *Mini-invasive Surg* 2019;3:27. <http://dx.doi.org/10.20517/2574-1225.2019.22>

Abstract

One anastomosis gastric bypass (OAGB) is a popular bariatric procedure, but controversies remain regarding biliary reflux and the potential risk of cancer. Esophagojejunosomy (EJ) in rats is a validated and reproducible model for the development of metaplasia [Barett's esophagus (BE)] and esophageal adenocarcinoma (EA) with a minimal exposure of 12 to 20 weeks. We are analyzing the risks of BE and EA in an OAGB rat model and comparing these with the EJ rat model. The purpose of this study is to describe our OAGB and EJ techniques in rats that we used to evaluate biliary reflux and share our experience with scientists and the bariatric community. These operations are short and simple procedures with acceptable morbidity.