



Single Anastomosis Sleeve-Jejunal Bypass: a New Method of Bariatric/Metabolic Surgery

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Abstract

Bariatric surgery plays a key role in treating morbid obesity and its associated comorbidities whose incidence is increasing. The single anastomosis sleeve ileal (SASI) bypass is an investigatory procedure that is performed parallel with standard and established operations. The present research introduces the SASJ bypass with less concerns about malnutrition and excessive weight loss.

Keywords Single anastomosis sleeve-jejunal bypass · SASJ bypass · Bariatric surgery · Metabolic surgery

Introduction

Today, bariatric and metabolic surgeries have gained a special and globally approved position given the confirmed efficacy and safety of bariatric procedures and the increasing prevalence of obesity and its associated comorbidities [1]. In addition to these procedures, special investigatory procedures such as the SASI bypass was introduced by Mui et al. as a modified version of the Santorini's procedure [2] and based on one anastomosis gastric bypass that includes a side-to-side gastro-ileal anastomosis between the sleeved stomach and 250-cm distal of the small intestine [3].

A survey by the International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO) in 2016 reported this procedure mainly in Iran [1]. Mahdi et al. also showed the efficacy and safety of this procedure in weight loss outcomes and obesity-associated comorbidity resolutions, and the procedure simplicity compared with Santorini's method, the ability to perform regular upper gastrointestinal endoscopy as well as the absence of severe nutritional deficiencies; nevertheless,

they reported one case of re-operation out of 61 patients owing to excessive weight loss [4].

Moreover, Salama et al. found the main amount of digested food to pass through gastrojejunostomy, as confirmed by a gastrografin meal [5].

Given the lack of studies on the long-term effects of SASI bypass, severe weight loss and nutritional deficiencies in the long term appear as a point of concern. A novel procedure was developed in Hazrat e Rasool Hospital to form an anastomosis between the sleeved stomach and the jejunum rather than the ileum.

This new procedure is based on a new concept about one anastomosis gastric bypass, which a 150-cm biliopancreatic limb length is therefore efficient and safe to prevent long-term nutritional complications [6–8].

Surgical Technique

The single anastomosis sleeve-jejunal (SASJ) bypass is performed laparoscopically in a French position through inserting five ports, i.e., one 11-mm trocar above the umbilicus, two 12-mm for the right and left working hands, one 5-mm at left upper quadrant, and one 5-mm trocar at the epigastrium for liver retraction. Sleeve gastrectomy is then performed over the bougie 40 Fr, beginning from 3 cm of the pylorus up to the angle of HIS. An opening is then made at the posterior aspect of the stomach 3 cm proximal to the pylorus followed by creating a 30-mm side-to-side gastrojejunal anastomosis along the proximal direction. The enterotomy is ultimately closed

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with a one-layer running suture of PDS 2-0. After performing the air-leak test and hemostasis, a drain is inserted for 1 day and the patient will be discharged after tolerating clear liquids for a day after the surgery.

Conclusion

Given the major role of investigatory procedures in bariatric and metabolic surgeries, further studies are recommended to be conducted to verify their efficacy and safety. Furthermore, despite the effectiveness of the SASI, concerns over its long-term effects are recommended to be resolved by conducting further research.

The SASJ bypass was introduced based on the SASI and the new concept of OAGB suggesting a 150-cm biliopancreatic limb is completely safe and efficient for weight loss and comorbidity resolution.

The SASJ bypass appears safer than the SASI in excessive weight loss and nutritional deficiencies and simpler owing to its better surgical ergonomics.

This procedure is required to be studied more in depth, and its safety and efficacy to be evaluated using long-term follow-ups.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval Statement All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Statement Informed consent was obtained from all individual participants included in the study.

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