



Another Petersen's Space Hernia After One Anastomosis Gastric Bypass: a Video Case Report

Aamir Abbas¹ · Mohammad Kermansaravi^{1,2}  · Foolad Eghbali^{1,2} · Abdolreza Pazouki^{1,2}

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Abstract

One anastomosisgastric bypass(OAGB) is currently known as a standard bariatric procedure worldwide. A rare event after OAGB is internal hernia through the Petersen's defect.

Keywords Petersen's space hernia · One anastomosis · Gastric bypass

Introduction

One-Anastomosis/Mini Gastric Bypass (OAGB/MGB) has been a popular procedure in Bariatric surgery during the past few years (1). According to the International Federation for Surgery of Obesity and metabolic disorders (IFSO), OAGB/MGB is currently a standard, safe and effective bariatric procedure (2). The main reasons for the popularity of this procedure include its simplicity and excellent outcomes while maintaining a low complication rate (3). The most common complications of this procedure are gastro-esophageal reflux and bowel obstruction, which occur in 6.6% to 8.1% of the patients (2). Nutritional complications have also been commonly reported after OAGB with biliopancreatic limb of 200 cm(4). In the case of chronic and medicationresistant bile reflux, revisional procedures such as conversion to Roux-en-Y gastric bypass are recommended(5). One of the rare yet existing complications is internal hernia due to Petersen's defect. Internal hernia is likely to occur after OAGB/MGB (3, 6, 7). Despite the small number of cases of internal hernia after OAGB/MGB, there is still no consensus about closing

Petersen's defect in OAGB/MGB. This video presentation reports on a case of internal hernia undergone OAGB/MGB one year before the manifestation of this problem.

Case Presentation

The case was a 48-year-old female patient presenting with bile reflux, heart burn, and chronic abdominal pain.

The patient had undergone OAGB/MGB with a 200-cm biliopancreatic limb 1 year before, when her body mass index (BMI) was 52 kg/m².

She had not experienced any complications during the first 7 months after the operation, but she complained of bile reflux symptoms after this period.

Upper GI endoscopy was performed and grade B esophagitis and chronic gastritis were confirmed. The patient had proper medical treatment with PPI for her reflux, but after 5 months, her symptoms were not resolved.

The patient was scheduled for conversion to RYGB due to persistent symptoms of bile reflux, which had not responded to maximum medical therapy.

An interesting finding in the reoperation was an internal hernia developed due to Petersen's defect.

Most of the patient's small bowel was moved from the left to the right side of the abdominal cavity through Petersen's defect.

Petersen's defect was specified and herniation was reduced. After the reduction of the internal hernia, the total length of the small bowel was measured, which proved to be 695 cm at the time of the revision. Since the patient's chief complaint was of persistent bile reflux and resistance to medical treatment, the

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✉ Mohammad Kermansaravi
kermanaravi.m@iums.ac.ir; mkermansaravi@yahoo.com

¹ Minimally Invasive Surgery Research Center, Iran University of Medical Sciences, Tehran, Iran

² Center of Excellence of International Federation for Surgery of Obesity, Hazrat-e Rasool Hospital, Tehran, Iran

operation was revised to RYGB (200–75 cm), from which 200 cm was the biliopancreatic limb and 75 cm was specified for the alimentary limb, without resizing the pouch due to bile reflux being the only complaint. No complications were observed during and after the operation, and the patient was discharged from the hospital in good health the day after the operation.

After this revision, the patient's chief complaint was resolved and she no longer showed any symptoms of bile reflux. Her BMI was 38 kg/m² in the last visit after the operation. She was revisited 10 days, 1 month, and 3 months after the last operation, but she no longer had any complaints.

Conclusion

Bile reflux after OAGB may be related to Petersen's defect hernia and in any case with bile reflux internal herniation should be mentioned.

The video presentation shows the method of reduction of internal hernia after OAGB/MGB.

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 participants included in the study.

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