

Different Onset, Acute Pancreatitis, Rare Complication after Laparoscopic Sleeve Gastrectomy: Report of two cases

Kawintharat Harirugsakul^{1*}, Jaruwan Kongkit², Thakoon Poonthananiwatcool¹

¹ Department of Surgery, Vachiraphuket Hospital, Thailand

² Department of Medicine, Endocrinology, Vachiraphuket Hospital, Thailand

*Corresponding Author: Kawintharat Harirugsakul, Department of Surgery, Vachiraphuket Hospital, Thailand. E-Mail: harirugsakul.w@gmail.com

Received date: March 12, 2019; Accepted date: July 19, 2019; Published date: November 01, 2019

Citation: Kawintharat H, Jaruwan K, Thakoon P (2019) Different Onset, Acute Pancreatitis, Rare Complication after Laparoscopic Sleeve Gastrectomy: Report of two cases. *Clinical Obesity and Bariatric Surgery*. 2(1): DOI:10.31579/cobs.19/004

Copyright: © 2019 Kawintharat H. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Introduction

Laparoscopic sleeve gastrectomy (LSG), now, has become one of the most commonly performed surgical procedure for morbid obesity patients worldwide, and the trend is increasing⁽¹⁾. The growing popularity of this procedure is highly rapid as it accounted for 125,318 times in 2016 compared to 28,124 times in 2011⁽¹⁾. Even if one of the main reasons for this rising is due to less complexity than gastric bypass, it still possesses numerous complications similar to other surgical procedures⁽²⁾. Such complications was bleeding, superficial wound infection, post-operative leak, stricture, small bowel obstruction.

Here we report two cases of different onset acute pancreatitis as rare post-operative complications for LSG⁽²⁾.

Case presentation and management

Case1.

A 33-year-old female with morbid obesity came to our bariatric center for weight reduction therapy. After full examination, it was found that she had body mass index (BMI) 48.1 kg/m² with co-morbidities of hypertension, obstructive sleep apnea, gastroesophageal reflux disease and fatty liver found by ultrasonography. She underwent LSG at our center, and the operation was successful with no intraoperative complication. However, on the 2nd post-operative day, she developed acute onset epigastrium pain with elevated body temperature about 38.5°C. After the investigation had been done, the white blood cell counts were raised to 13,810 /mm³, the computed tomography (CT) scan with intravenous contrast showed localized enlargement of pancreatic body and tail with parenchymal edema, peripancreatic fat stranding and fluid along peripancreatic body, extended to left pericolic space compatible with acute pancreatitis (figure 1). There was no leakage of contrast media in this study. Because of high index suspicion of the leakage point in this acute complication, the diagnostic laparoscopy was performed. Intraoperative findings showed an inflammation of the tissue at retroperitoneal space to left paracolic gutter. There was good staple line with no leakage point, adhesion or abscess. Leak test by air infiltration via gastroscope was done and showed normal result. Drainage tube was placed at the left paracolic gutter. After the operation, the patient was closely monitored and managed conservatively by intravenous fluids, pain medications, antiemetic drugs, nil by mouth for 3 days. Her condition was improved succeedingly. Moreover, the drain output was going down to , approximately, 10 ml in 5th day. Finally, the patient was discharged on the 8th post-operative day following LSG.

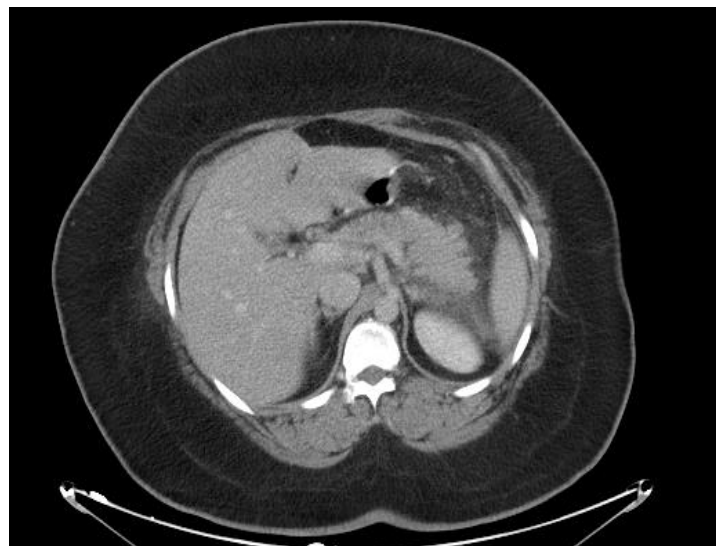


Figure 1: CT scan of upper abdomen in case 1

Case2.

A 22-yr-old male with morbid obesity and co-morbidities of hypertension, fatty liver, dyslipidemia, BMI was 34 kg/m², came to the surgical outpatient department with nausea and vomiting on the 28th post-operative day. He claimed that the symptom started ten days after LSG, and was growing more severe in three weeks later. History taking was done to find out the etiology of vomiting, he denied any alcohol drinking, high fat diet except history of soft drink about 1 litre per day. Even though he vomited everything he had just eaten. He denied having any abdominal pain or fever. After evaluation, his vital sign was within normal limit, he had moderate dehydration, the laboratory test showed elevated serum lipase up to 3732 U/L(23-300 U/L), amylase up to 295 U/L(30-110 U/L), creatinine up to 1.93 mg/dL (his baseline creatinine was 0.91 mg/dL). He was admitted to the surgical unit and managed conservatively with intravenous fluids and antiemetic drugs. After 3 days, his condition was improved and his creatinine was return to baseline. CT scan with intravenous contrast was performed for work up other causes of acute pancreatitis and showed diffuse mild edematous change of the entire pancreas with minimal peripancreatic fat stranding, compatible with acute pancreatitis (figure 2). There was an absence of fluid collections or bowel obstruction. He was discharged five days later.

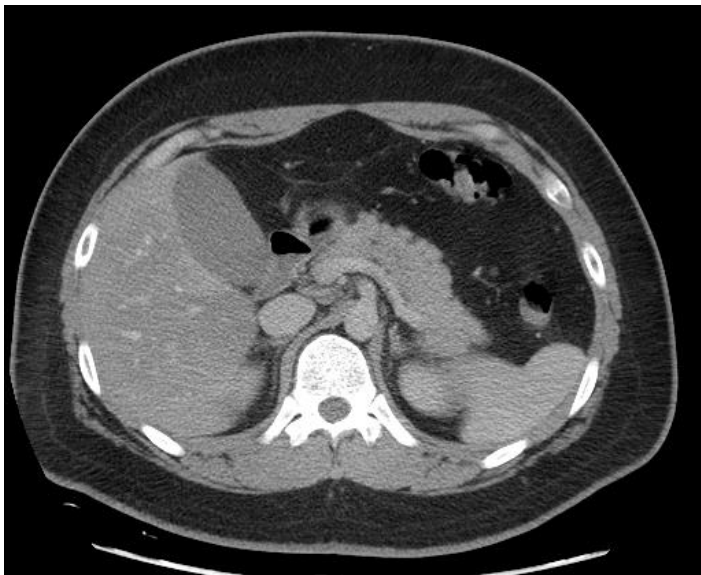


Figure 2: CT scan of upper abdomen in case 2

Discussion

Acute Pancreatitis (AP) is an acute inflammatory process of pancreas which can affect other distant organs⁽³⁾. The diagnosis of this disease can be made if the patient has 2 of 3 checked points in the following criteria: acute onset abdominal pain, elevated serum amylase or lipase and imaging criteria by computed tomography, magnetic resonance or ultrasonography⁽⁴⁾. For the etiology of AP, It can be, for instance, mechanical ampullary obstruction, alcohol, drug, hypertriglyceridemia, or post-operative procedure. AP is reported as one of the post-operative bariatric surgery complication accounted for 1.04% (28 out of 2695) during a median follow-up of 3.5 years⁽⁵⁾. However, there were only three cases of LSG in this research with no specified time onset.

In our opinion, at present, the incidence and mechanism of the AP following LSG were not known. In the literature review till date, only two cases were reported which, occurred as early post-operative complication (within 14 days) on the 10th and the 12th post-operative day^(6, 7). In our cases, AP was developed at the 3rd and around 28th post-operative day.

In our cases, we did not identify clear cause of this complication. However, many mechanism were hypothesized, such as injury to the blood supply of pancreas intraoperatively, spasm of the ampulla, change of the body hormone. Moreover, we think that the incidence rate may be much higher because the 2nd patient did not have abdominal pain at all, which can be interpreted that there might be many

unrecognized cases due to the absence of such pain.

Conclusion

Due to the increase in morbid obesity, total number of LSG has risen rapidly. As the responsibility of the surgeons who perform such operation, we should be aware of the complications which can happen to the patients. Acute pancreatitis which is one of the possible life threatening disease should be considered as a differential diagnosis both in acute and delayed post-operative period, or even patient have no pain at all.

Consent

Patients consent were obtained.

Conflict of interest

The authors have no conflicts of interest.

References

1. English WJ, DeMaria EJ, Brethauer SA, Mattar SG, Rosenthal RJ, Moron JM. American Society for Metabolic and Bariatric Surgery estimation of metabolic and bariatric procedures performed in the United States in 2016, *Surg Obes Relat Dis* 2018;14:259-263.
2. Pradarelli JC, Varban OA, Ghaferi AA, Weiner M, Carlin AM, Dimick JB, et al. Hospital variation in perioperative complications for laparoscopic sleeve gastrectomy in Michigan. *Surgey* 2016;159:1113-20.
3. Lankisch PG, Apte M, Banks PA. Acute pancreatitis. *Lancet* 2015;386:85-96
4. IAP/APA evidence-based guidelines for the management of acute pancreatitis. *Pancreatol: Off J Int Assoc Pancreatol* 2013;13(4 Suppl 2):e1-5.
5. Kumaravel A, Zelisko A, Schauer P, Lopez R, Kroh M, Stevens T, et al. Acute pancreatitis in patients after bariatric surgery: Incidence, outcomes, and risk factors. *Obes Surg* 2014;24:2025-30.
6. Kalabin A, Mani VR, Mishra A, Depaz H, Ahmed L. Acute pancreatitis with splenic infarction as early postoperative complication following laparoscopic sleeve gastrectomy. *Case Rep Surg* 2017;2017:8398703.
7. Sarwal A, Khullar R, Sharma A, Soni B, Baijal M, Chowbey P. Acute pancreatitis as an unusual early post-operative complication following laparoscopic sleeve gastrectomy. *J Min Access Surg* 2018;14:164-7.