



Recurrent Pancreatitis as an Acute Complications Post Laparoscopic Sleeve Gastrectomy

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Abstract

Laparoscopic sleeve gastrectomy (LSG) is now one of the most commonly performed surgical treatment for morbid obesity worldwide [1] while complications regarding this procedure are reported in the literature, acute pancreatitis is a rare complication that is appearing more as the number of patients undergoing (LSG) is increasing.

This report presents a patient who developed recurrent acute pancreatitis in the early post-operative period at days 14 and 26 post-operatively as he returned to our hospital twice complaining of fever, nausea, persistent vomiting, dehydration and elevated C-reactive protein (CRP), with high serum lipase.

CT-scan pelviabdominal with contrast diagnosed acute pancreatitis. The patient was managed conservatively and recovered well.

LSG is a common bariatric surgery procedure, most common complications associated with it are bleeding and leakage from the staple line.

Keywords: Acute Pancreatitis; Complication; Laparoscopic Sleeve Gastrectomy

Introduction

LSG is an effective treatment in achieving significant weight loss and improving the obesity related comorbidities [3].

As with all medical procedures, postoperative complications will occur. Acute care surgeons need to be familiar with the common problems and their management [2].

Although the overall risks of major complications range between 2.9% and 12.9%, the most common complications are hemorrhage and leak. As such, LSG is considered a relatively safe surgical option for weight loss [3].

Here we present a rare case of a potentially life-threatening complication following LSG: recurrent acute pancreatitis in the early post-operative period.

Case Report

A 33-year-old morbidly obese male (BMI = 51 kg/m²) with severe weight gain despite exercise and oral diet regimen referred to our bariatric clinic for weight reduction surgery. After full evaluation and discussion of bariatric surgical approaches, risks and

benefits related to surgery, the patient opted to proceed with LSG. Preoperative investigations were all normal. He had no cholelithiasis on preoperative ultrasound.

The patient underwent uncomplicated LSG at our hospital and was discharged home on day 1 post surgery. He was then followed up in the bariatric clinic, reported of tolerating oral liquid diet well with no complaints. However, the patient returned to the emergency room on post-operative day 14 with complaints of upper abdominal pain radiating to the back, with nausea and vomiting for the last 2 days.

On physical examination, the patient had epigastric and left hypochondrial tenderness. Investigations showed, white blood cell (WBC) counts were raised- 18.500/mm³, CRP 283.5 mg/l, serum creatinine 0.84 mg/dl, serum lipase 532 U/L, serum amylase 50 U/L. ultrasonography was performed which revealed no gallstones and no biliary tree dilatation, The abdomino pelvic computed tomography (CT) scan with intravenous and oral contrast showed enlarged inflamed pancreatic head with dirty fat stranding, with the absence of leakage from the Stabler line, no fluid collections, or bowel obstruction. (Figure 1 and 2), Oral Gastrografin swallow study confirmed the absence of leak (Figure 3).

Patient was admitted to the surgical unit, closely monitored and successfully managed conservatively with intravenous fluids, pain medication, antiemetics, and DVT prophylaxis with marked improvement of symptoms, the patient tolerated oral intake and laboratory investigations returned to normal values, the patient was discharged home on day 5 post admission. Follow up in bariatric clinic 1 week later he reported tolerating diet well with no relapse.

On day 26th post operatively, the patient had recurrent symptoms and signs of pancreatitis. Work-up for causes of pancreatic predisposing factors were all negative, the patient was admitted for 4 days on conservative management then discharged home in a good condition. Follow up in bariatric clinic showed no relapse and he had no further attacks. He is losing weight as expected post gastric sleeve surgery.

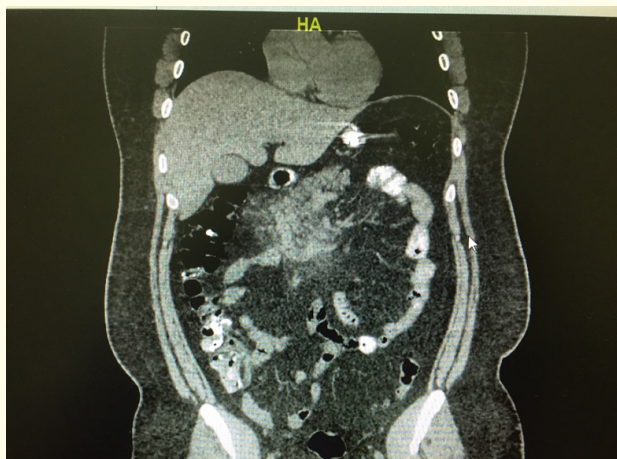


Figure 1: Ct-scan showing inflamed enlarged pancreatic head.

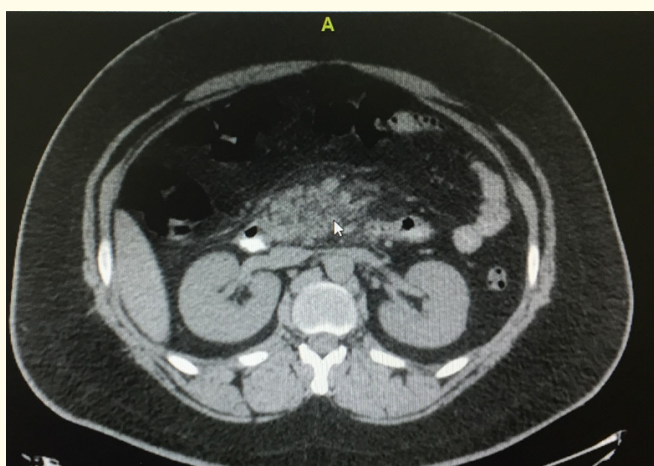


Figure 2: CT-scan with inflamed pancreas and normal looking kidneys.

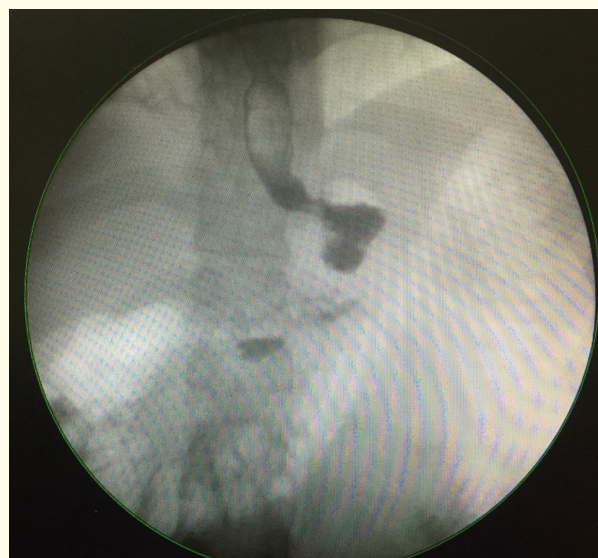


Figure 3: Gastrographine study no evidence of leakage.

Discussion

Till now, there is no consensus about the best weight losing surgical procedure for obese patients. LSG is a relatively safe procedure, that results in the resolution of obesity-associated comorbidities. LSG has become the most performed bariatric surgical procedure [4].

Sleeve gastrectomy was originally described as part of biliopancreatic diversion with duodenal switch by Dr Dough Hess (Bowling Green, Ohio, 1988) and later implemented as a laparoscopic stand-alone surgery [5].

Early complications include gastric leakage, hemorrhage, abscess formation, port site hernia and pancreatic fistula [6].

In our case, acute recurrent pancreatitis presented as an early complication in the first month.

Pancreatitis is rarely reported in literature as an early complication of bariatric surgery [7].

In a study by J. Chang, *et al.* (2015) Only 3.6% patients developed postoperative pancreatic-biliary complications following bariatric surgery and only 0.27% of those patients developed acute pancreatitis with mean time from surgery being 1.8 – 1.4 years. Cholelithiasis, female gender, age >50 at the time of bariatric procedure and Roux-en-Y gastric bypass were identified as predictive factors of pancreatic-biliary complications with no mention of LSG as a definitive risk factor [7].

In our case the patient was a male who had no cholelithiasis, his age was 33 years and there were no predisposing factors for acute pancreatitis as revealed by the investigations done.

We feel that the development of acute pancreatitis in patients undergoing LSG is not well recognized and reported. It's our believe that the most probable cause of acute pancreatitis is compromised pancreatic microcirculation following gastric mobilization during LSG and/or secondary to adhesions of peripancreatic tissue intraoperatively. Other mechanisms could be edema and spasm of major papilla at sphincter of Oddi.

Conclusion

The rising incidence of obesity has led to adoption of bariatric surgical procedures for achieving improved clinical outcome. LSG is a well-known procedure in bariatric surgery. In this procedure accurate gastric mobilization is essential to avoid any vascular and reactionary injury.

We report a case of acute pancreatitis as a rare but possible life-threatening complication following LSG.

Such diagnosis need to be entertained after ruling out more common causes for patients presenting acutely in the early post-operative period following laparoscopic sleeve gastrectomy.

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