



Pancreatic Tail Bleeding and Leakage After Sleeve Gastrectomy in a Patient with High Body Mass Index: a Case Report

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Background

Nowadays, sleeve gastrectomy is being chosen by many bariatric surgery teams [1]. In this surgery, leakage is the most common complication [2]. This problem can extend the time patients stay in the hospital and as a result, increase the cost of hospitalization [3] (<https://www.sages.org/meetings/annual-meeting/abstracts-archive/economic-impact-of-anastomotic-leaks-in-bariatric-procedures-in-the-usa-2005-2009/>). The newest studies have showed 1 to 5% leak rate in bariatric procedures (<https://www.sages.org/meetings/annual-meeting/abstracts-archive/economic-impact-of-anastomotic-leaks-in-bariatric-procedures-in-the-usa-2005-2009/>). The most frequent leakage site is staple-line [4].

Case Report

The patient was a 50-year-old man with BMI: 48 admitted for sleeve gastrectomy procedure in Ghadir Mother and Child Hospital, Shiraz, Iran.

Six hours after sleeve gastrectomy, the patient was referred to the operating room due to significant bleeding (around 500 ml fresh blood in 4 h). Diagnostic laparoscopy was done, and exact location of bleeding was diagnosed tail of pancreas which seemed to be unnecessary manipulation during

dissection. So, after adequate irrigation and removal of clots, the origin of bleeding at the tail of the pancreas was controlled with ligasure device. Thereafter, two drains were inserted, and the patient was transferred to the ward.

The patient had suitable situation and discharged after 2 days.

Five days after second operation, the subject came back to hospital due to complaint of fever (38.5) and abnormal drainage from his drains.

Examination at the site of sleeve gastrectomy via CT scan revealed fibrin materials in upper abdomen. Subsequently, adequate irrigation and removal of fibrins were performed. Then, the remaining of the stomach from sleeve gastrectomy was exposed and leak test with methylene blue was done. There was a very small defect which mostly was in upper part of the stomach. Since the tissue of stomach had proper consistency, defect was closed with PDS 2/0 as a figure-of-8 stitch and was reinforced with the omental patch. Then, jejunostomy feeding tube was located about 30 cm after ligament of Treitz, also 3 drainage catheters were inserted, and operation was terminated.

One day later, despite the insistence of the physician, the patient left the hospital with good condition and without any leakage, after getting an informed consent.

Once again, after 5 days (6 days after the second operation), the subject came back with very malodor discharge from his drains. So, due to probability of leakage and accumulation of fibrins, spiral CT scan with oral and IV contrast was performed that showed left upper quadrant collection and insignificant leakage. So, we did continues irrigation for the patient via catheters. Afterwards, reduction of odor and volume of drainage occurred.

The general patient's condition became good, and feeding was given by jejunostomy tube. Five days after admission, the patient was discharged with PO antibiotic, tube jejunostomy feeding, and draining catheters. After 2 weeks, PO feeding started and jejunostomy tube was kinked.

Spiral CT scan with oral and IV contrast showed neither leakage nor collection, so jejunostomy tube and two drains

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catheters were removed, and 1 week after pausing drainage, the third draining catheter was removed when the patient's situation was stable.

Discussion

Unlike young surgeons' insight, that sleeve gastrectomy is the simplest bariatric surgery; it is not a simple surgery because of its difficulty to control leakage and also due to proximity of spleen hilum and tail of pancreas. So, precise dissection is needed to prevent injuries to the pancreatic tail and region vessels. Thus, authors would like to suggest that such an operations should be performed by a well-trained surgeons. The authors also suggest that, since the sites of fundus of stomach, spleen hilum, pancreatic tail, and left crus of diaphragm are very sensitive locations in this procedure, the operation in mentioned areas should be enrolled by an expert surgeons. It is worth noting that, in the patients with higher BMIs, such an operations may face more complications and more precise measures seem warranted.

Conclusion

The authors recommend that young surgeons increase their experience and skillfulness via performing such surgery on lower BMIs patients before implementing sleeve gastrectomy

in patients with high BMI, and we suggest that, since the tail of pancreas and spleen hilum are easy-bleeding organs after manipulation and careless dissection during sleeve gastrectomy, the dissection and manipulation should be performed with adequate accuracy and focused concentration.

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Compliance with Ethical Standards

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

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