Difficulties in diagnosing fistulas after bariatric surgery

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Introduction:

Sleeve gastrectomy has become a common procedure in the field of bariatric surgery. The simplicity of the procedure, no enteric anastomosis and no risk of internal hernia, dumping syndrome, or marginal ulcer make this surgery very appealing. In addition, sleeve gastrectomy decreases the level of ghrelin hormone, allows continued endoscopic access to the pancreaticobiliary system, has a less malnutritive effect, and provides comparative weight loss and subsequent resolution of comorbidities that parallels duodenal switch or Roux-en-Y gastric bypass. However, the ever present risk of a staple-line leak is still of great concern.

Subject:

A 36-year-old female patient, with type 2 diabetes and body mass index (BMI) of 36 kg/m2, was qualified for a bariatric surgery. In December 2016, the patient underwent a laparoscopic sleeve gastrectomy. The surgery proceeded as planned. The operative time was 95 minutes. To calibrate the sleeve, a 36 Fr gastric tube was used, the staple line was oversewed with V-Lock. The methylene blue was injected by way of nasogastric tube, and confirmed that there was no leakage from the stapler line.

On postoperative day 1 oral application of methylene blue was preformed. The dye did not appear in the adjacent drain. The patient was restless with a slightly accelerated pulse and for this reason, ERAS proceedings have not been implemented. On day 3, control water-soluble contrast study was performed. The study did not detect any irregularities. On the fourth day after the operation, a small amount of food was given orally. In the evening, the patient presented with abdominal pain.

Urgent laparoscopy showed large fluid collections in rectovaginal pouch, arround the spleen and the liver and between small intestine loops. The presence of a fibrin was detected in the area of the esophago-gastric junction. The leak was located at the esophagogastric junction. Rinsing and draining of the peritoneal cavity was preformed. Day after the relaparoscopy, the patient underwent the endoscopic stending (Hanarostent®, Esophagus BS (CCC), NES-18-170-070). In the period after reoperation, the patient used individually composed parenteral

nutrition and broad-spectrum antibiotics agents (carbapenems - Meropenem). Six weeks after the endoscopic stending, a control tomography was performed. Due to the lack of features of a surviving fistula in a computer examination, it was decided to remove the stent. After successful implementation of oral nutrition, the patient was discharged home. On the day of discharge the patient achieved a BMI of 31,6 kg/m2.

Conclusions:

Combined laparoscopic rinsing and draining of the peritoneal cavity, endoscopic insertion of a self-expandable stent, used individually composed parenteral nutrition and broad-spectrum antibiotics agents is an effective method for treatment of staple line leaks following laparoscopic sleeve gastrectomy.

The oversewing of the stapler lines does not completely prevent the fistula from forming.

Performing a leak test during surgery as well as administering methylene blue or performing X-ray in the postoperative period and placing an intraoperative drainage can lull surgeon's into a false sense of security and thus postpone the time of reoperation

Kategoria: K3. Chirurgia patologicznej otyłości / Techniki i metody terapii endoskopowej w chorobach przełyku / Pathological obesity surgery / Techniques and methods of endoscopic therapy in diseases of the esophagus