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Case Report: Splenic Infarct s/p Sleeve Gastrectomy

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Abstract:

A case of splenic infarct s/p sleeve gastrectomy is presented. A 28-year-old female presented with LUQ pain s/p sleeve gastrectomy POD7. CT scan with IV contrast revealed an area of nonenhancement at the superomedial aspect of the spleen consistent with a small splenic infarct. She was transferred out to the hospital under the service of the surgeon who had performed her sleeve gastrectomy. Splenic infarction is a rare post-op complication s/p sleeve gastrectomy. The spleen has dual blood supply via the splenic artery and short gastric arteries making complete infarction rare. It is usually diagnosed via CT with IV contrast. The aim of this case report is to increase the awareness of splenic infarction as a potential complication s/p bariatric surgery.



Figure 1: example of CT image of splenic infarction
<https://www.bing.com/images>

Case Presentation:

A 30-year-old female presented to the emergency room with left upper quadrant pain and constipation. She underwent a laparoscopic sleeve gastrectomy one week prior. She reports her last bowel movement was three days ago. She denies fever, chills, chest pain, shortness of breath, nausea, vomiting, hematemesis, melena, or hematochezia.

On arrival, the patient's vitals signs were blood pressure 140/104, heart rate 122 beats per minute, respiratory rate 16, temperature 98 degrees Fahrenheit orally and a pulse oximetry of 98% on room air. Physical exam revealed mild abdominal tenderness in the left upper quadrant and lower abdomen. There was no rebound tenderness or guarding. Rest of physical examination was unremarkable.

Patient's labs were as follows: WBC count was 15,000 per microliter with 84.7% neutrophils. Electrolytes, liver function panel, and lipase were within normal limits. A CT with IV contrast showed an area of nonenhancement at the superomedial aspect of the spleen consistent with a small infarct.

The case was discussed with patient's surgeon at outside hospital and patient was transferred out for further evaluation and treatment. Patient was discharged home after a period of observation.

Discussion:

Bariatric surgery is associated with many complications. This case report discusses a rare entity post-surgery: splenic infarct. The spleen is mainly supplied by the splenic artery which divides into 2-3 branches that supply various areas of the spleen [2]. Less commonly the spleen can also be supplied by the short gastric and pancreatic arteries [3]. In these cases, if a branch is the main arterial supply to a splenic segment, division during a sleeve gastrectomy operation can lead to infarction [4]. Konstantinos et. al stressed the importance of careful short gastric vessel division during the sleeve gastrectomy operation as this can "lead to insufficient perfusion of the upper pole of the spleen" [2].

Discussion continued:

CT scan allows for identification of laparoscopic sleeve gastrectomy post-operative complications. In the case of the splenic infarct, CT scan show wedge-shaped area of infarct or area of hypoenhancement [4]. Initial postoperative splenic infarct treatment is conservative with serial abdominal exams, pain control and observation. Symptoms can persist for several weeks. If pain is persistent, severe or if there are complications splenectomy may be required [4]. Complications including abscesses, cysts, rupture, or hemorrhage. Nores et. al showed 34% of patients with splenic infarct required a splenectomy for persistent pain [5].

Conclusions:

Bariatric surgery is becoming increasingly common due to rising obesity levels. The differential diagnosis for abdominal pain is broad however include splenic infarct in patients with recent bariatric surgery. In uncomplicated splenic infarct, treatment is mainly conservative.

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