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Correlations between a history of gastric surgery and gastric carcinoma

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Background

Sleeve gastrotomies have become a common bariatric procedure in the increasingly obese population of the United States with more data now being reported on the complications and post-operative risks. Developing gastroesophageal reflux disease (GERD) and gastro-esophageal malignancies after bariatric surgery is a concern that has been reported in the literature; however, there is not enough data on this topic.

Case Presentation

We present a case of a 66 year old woman with a BMI of 29 status post gastric sleeve surgery 9 years prior who presented with worsening dysphagia and weight loss. Over the last year, she reported nausea and vomiting associated with progressive dysphagia. First, she was intolerant to solids, but at presentation, she was unable to tolerate any oral intake, including liquids and medications. During the two months prior to presenting, she also had a 55 pound unintentional weight loss. The patient's primary care provider ordered a barium swallow study, which showed evidence of acid reflux. She was treated with a proton pump inhibitor (PPI) and referred to gastroenterology (GI) for further evaluation.

An esophagogastroduodenoscopy (EGD) revealed an anastomotic ulcer. Biopsies taken from the patient's EGD revealed gastric adenocarcinoma, diffuse type with signet cells. Endoscopic ultrasound (EUS) was performed for staging. The EUS was limited as the scope was not able to transverse the mass; however, staging was identified as T3N2Mx.

A diagnostic laparoscopy was planned to further determine staging as well as place a jejunostomy tube (J-tube) for nutrition as the patient still could not tolerate PO intake, requiring total parenteral nutrition (TPN). Unfortunately, prior to surgery the patient left the hospital against medical advice in order to seek a second opinion about her cancer.

Discussion

We present a case of a women who was diagnosed with gastric adenocarcinoma approximately 9 years after her gastric sleeve surgery. This is the sixth documented case of gastric or esophageal adenocarcinoma arising after sleeve gastrectomy [1-5]. This correlation is rare, but has been increasingly noted in the literature. A study of 17 patients found that cancer was often diagnosed at a mean of 8.6 years after bariatric surgery with adenocarcinoma being the most common form [6]. Unfortunately, most of the cancers are diagnosed late because they are often asymptomatic or present with non-specific symptoms such as nausea, vomiting, and dysphagia [5].

In addition, diagnosis is difficult and delayed due to the lack of screening guidelines. Currently, different recommendations exist. Some studies recommend initiating pre-operative EGD screening for bariatric surgeries as obesity itself is known to increase the likelihood of adenocarcinomas [3,7]. Others recommended early and consistent EGD screening post-operatively; whereas, other experts recommend EGD screening only in symptomatic post-operative patients [1,2,4]. Currently, post-operative management of bariatric surgery focuses on nutritional status and lifestyle changes with scant recommendations on cancer screening. This highlights the lack of symptomatic monitoring and cancer screening in the post-bariatric surgery patient population.

The absence of more standardized recommendations for such screening puts these patients at risk for late diagnoses of these cancers. Although rare, the occurrence of gastro-esophageal carcinomas post bariatric surgery is concerning and merits further investigation and more standardized management protocol.

Conclusion

There is a lack of official cancer screening in post-bariatric surgery patients who are at increased risk of developing cancer due to a history of obesity and the surgery itself. In this context, providers should be able to recognize the need for cancer screening in this population of post-bariatric surgery patients and help to mitigate future complications that may result.

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