Malignant gastric carcinoid tumor and morbid obesity

Recently, Kassir et al. reported the incidental finding of carcinoid tumor in 2 patients undergoing gastric bypass [1]. A few previously reported case studies have suggested an association between obesity and a higher incidence of carcinoid tumor [2–4]. Carcinoid tumor is rare but is the most common gastrointestinal endocrine neoplasm. Gastric carcinoids account for less than 1% of all carcinoid tumors and less than 2% of all gastric neoplasms, with an incidence of 2 per million in the general population [1–4].

We recently performed an analysis of the incidence of carcinoid tumors in patients undergoing bariatric surgery. To better examine the incidence of carcinoid tumor in this population, cases of laparoscopic sleeve gastrectomy for morbid obesity (CPT code: 43775) between January 2010 and December 2012 were extracted from the American College of Surgeons–National Surgical Quality Improvement Program (ACS-NSQIP) database [5]. Among them, patients with a diagnosis of malignant carcinoid tumor of the stomach (ICD-9 code: 209.23) were examined. Of the 11,320 extracted laparoscopic sleeve gastrectomy cases, 5 patients (0.04%) had a malignant gastric carcinoid tumor. The incidence of carcinoid tumor in this series (442 per million) was higher than the general population (2 per million). Carcinoid patients had a male/female ratio of 1:4, a mean age of 56.0 ± 19.0 years, a mean body mass index of 35.8 ± 6.1 kg/m², and a median American Society of Anesthesiologists score of 2. There were no major 30-day postoperative complications, reoperations, or readmissions.

Although rare, a higher incidence of malignant gastric carcinoid tumor in morbidly obese patients than in general population was observed. This finding raises suspicion about the influence of obesity on the pathogenesis of carcinoid tumors. In patients with a localized gastric carcinoid tumor along the greater curvature, sleeve gastrectomy may be a safe and appropriate surgical option. We agree with Kassir et al. [1] that gastric bypass with resection of the excluded stomach can be a viable alternative.

ACS NSQIP Disclaimer

The American College of Surgeons National Surgical Quality Improvement Program and the hospitals participating in the ACS NSQIP are the source of the data used herein; they have not verified and are not responsible for the statistical validity of the data analysis or the conclusions derived by the authors.

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