



Sleeve Gastrectomy, GERD, and Barrett's Esophagus: It Is Time for Objective Testing

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Published online: 6 May 2019

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Dear Editor,

We have read with great interest the article published by Sebastianelli et al. [1] who reported the rate of Barrett's esophagus (BE) 5 years after sleeve gastrectomy (SG). In this multicenter study, the authors followed-up 90 consecutive obese patients who underwent SG. All of them underwent upper endoscopy, clinical assessment for the presence of gastroesophageal reflux disease (GERD) symptoms, and recording of proton pump inhibitors (PPI) use before and after surgery. At baseline, BE was present in none of the obese patients, whereas 9 of them had esophagitis; 20 subjects, all assuming PPI before intervention, were classified as affected by GERD. After 5 years of follow-up, endoscopic examination showed newly diagnosed short BE, without evidence of dysplasia, in 18.8% of the cases. Interestingly, at univariate analysis, BE presence was linked to a failure of weight loss. Finally, the prevalence of GERD symptoms increased from 21 to 76%, with a consequent increase of PPI usage (52%), and esophagitis rate increased from 10 to 41% (with 19% of them being asymptomatic). Authors concluded that in SG patients, a systematic endoscopy should be performed in order to identify the pre-neoplastic lesion and preventing future complications.

This study provides very interesting data on a controversial issue, related to that is the prevalence of GERD and its complications after SG. Although some studies account for a reduction of GERD symptoms after SG, which could probably be related to the weight loss, other studies found a worsening of such symptoms or "de novo" development of this condition [2, 3]. The authors of the present study deserve commendation

for exploring the incidence of GERD symptoms and related complications in patients with and without pre-operative symptoms and signs of pathological reflux. On the other hand, we believe that the interpretation of their findings would have greatly improved if the results of objective testing (high-resolution manometry, HRM, and impedance-pH monitoring) before and after SG were also reported. In fact, even if patients complaining of GERD symptoms and those with pre-operative esophagitis were included, no data on their real reflux burden can be extrapolated. Indeed, previous studies demonstrated that obese patients were hyposensitive to reflux occurrence [4]. In particular, two recent studies [5, 6] have showed that obese patients may have pathological exposure to reflux even in absence of symptoms and signs. Moreover, some Authors [7] showed that in obese subjects without pre-operative objective pathological reflux, SG increased the total number of reflux events, the esophageal pH < 4 exposure and the esophageal clearance time. A subsequent multicenter study [8] found that the most common mechanism of reflux genesis after SG is the increased intragastric pressure in the reduced stomach, because the lacking of fundus that in normal subject can maintain the stomach in an isobaric condition. Actually, GERD pathophysiology is complex and we should no more discuss about this phenomenon only considering symptoms or signs. The recent guidelines on GERD diagnosis and management [9, 10] clearly state that clinical features and mild esophagitis alone (grades A and B) are not sufficient to estimate the reflux burden. Furthermore, because of a high prevalence of non-erosive reflux disease [11] in the GERD spectrum, sometimes also with normal acid exposure but abnormal number of reflux events and positive reflux-related symptoms, impedance-pH monitoring is mandatory. This technique, in fact, allows to measure all kinds of reflux events, thus increasing the diagnostic yield of traditional reflux monitoring (pH-metry) [12]. Moreover, recent data suggests a further promising role of HRM in GERD pathophysiology; this technique allows to establish not only the motility of esophageal body, but actually can provide important data about

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esophagogastric junction morphology [13] and on the esophagogastric junction barrier effect [14]; the impairment of these two parameters is strongly linked to GERD presence.

Thus, providing objective testing with HRM and MII-pH before and after SG may be useful to understand whether a particular group of patients should be treated with alternative bariatric procedure in which there is a sure reduction of GERD, e.g., gastric bypass. So far, data obtained by HRM and MII-pH, together with those obtained by endoscopy, should be collected and reported before and after surgery in all studies evaluating the effect of any bariatric procedure in obese patients. This would allow to a better pre-operative selection for the best “tailored” bariatric surgery.

Compliance with Ethical Standards

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

Ethical Statements This article does not contain any studies with human participants or animals performed by any of the authors. For this type of study, formal consent is not required.

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