



Comment on: Expected Values of Esophageal Transit and Gastric Emptying Scintigraphy Post-Uncomplicated Sleeve Gastrectomy

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We have read with great interest this paper on gastric emptying and esophageal transit after sleeve gastrectomy (SG)[1]. Authors have demonstrated that rapid gastric emptying with asymptomatic deglutitive and post-prandial gastroesophageal reflux are common events following SG.

Even if several articles[2] have previously demonstrated that emptying time could reduce after SG, what we found very interesting in this paper was the correlation with gastroesophageal reflux (GERD).

First, this study proved that there are two types of GERD after sleeve: one immediately after deglutition, probably due to the reduced volume of the stomach, and a second one within 90 min. Since the average emptying half time was 21 min, when this delayed reflux occurs, the gastroduodenal communication through the pylorus has already started. Therefore, this second reflux is not only gastroesophageal but a duodeno-gastroesophageal refluxate (DGER).

This difference may be of utmost importance in the pathophysiology of esophagitis and Barrett's disease after SG[3]. Indeed, the mucosal injury is initially driven by the deglutitive acid GERD and subsequently by alkaline DGER.

Moreover, authors' findings have furtherly confirmed that both types of reflux were asymptomatic, which is consistent with previous evidence[4].

However, there was a possible flaw in the operative technique that may have worsen the motility of the sleeved

stomach; SG started at 1–2 cm from the pylorus implying a wide resection of the antral region. Normally, when the pylorus opens the biliopancreatic juice partially reflux into the antrum, the peristaltic movements favor the passage back into the duodenum along with the bolus of food. If the gastrectomy started closer to the pyloric area, this peristaltic progression fails due to the absence of a consistent muscular wall, and the duodeno-gastric content refluxes upwards. This mechanism is probably the main reason of DGER after SG[5, 6].

On the contrary, preservation of the antrum has no negative effect on weight loss[7] and preserves normal gastric emptying[8] on scintigraphic evaluation.

In conclusion, we commend the authors for their standardization of esophageal transit and gastric emptying scintigraphy specifically tailored to SG patients, since this approach could help defining the reasons of GERD and DGER after sleeve. Randomized controlled trials using this diagnostic tool could also help defining the ideal stomach shape to induce satisfactory weight loss avoiding reflux.

Declarations

Ethics Approval This article does not contain any studies with human participants or animals performed by any of the authors.

Informed Consent Informed consent does not apply.

Conflict of Interest The authors declare no competing interests.

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