



## Reply to Letter Regarding “Sleeve Gastrectomy, GERD and Barrett’s Esophagus: It is time for objective testing”

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Dear Editor,

We thank *Dr. Tolone* et al, for the interest they showed for our work on systematic endoscopy 5 years after sleeve gastrectomy (SG) [1] and their comments. They stated that objective testing of gastro esophageal reflux disease (GERD) including high-resolution manometry (HRM) and impedance-pH monitoring (MII-pH) would have greatly improved the intrinsic value of our study.

Concerning the issue of intragastric pressure, it should be stressed that the interplay among intragastric pressure, obesity, and GERD is complex [2, 3] and data in the setting of SG are still scanty. Indeed, it has been recently demonstrated in a prospective study that the basal intragastric pressure measured during a standard HRM is decreased 1 year after SG but the latter is increased after swallows [4]. Interestingly, these data are in line with those reported by Mion et al. [5] that considered these results more as manometric marker of SG, rather than a pathological finding with clinical implications. Further studies are thus needed to define the role of intragastric pressure in the setting of GERD complicating the SG.

Whether HRM and MII-pH preoperative workup may result in a significant reduction in the prevalence of GERD after the SG through a more careful patients selection still remains speculative and should be proved in a well-designed prospective study. Nowadays, this practice seems quite unrealistic with the current epidemiology of SG. Indeed, in 2017, 59,300 patients underwent bariatric surgery including 34,690 SG, in France [6].

In addition to that, while proton pump inhibitors (PPIs) are an effective treatment for most patients having GERD after a SG [7], the conversion into Roux-en-Y gastric bypass, the procedure of choice in morbidly obese candidates to bariatric surgery with GERD or at risk of developing the latter after the SG, usually results in the resolution of symptoms.

Furthermore, we would remind that the primary goal of our work was the evaluation of the prevalence of Barrett’s esophagus (BE) in a population of SG patients issued from different bariatric centers beyond 5 years after surgery as clearly indicated in the paper methods section. We also acknowledged among study limitations the evaluation of GERD (symptoms

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and PPIs use) that was retrieved retrospectively from patients' clinical files for baseline data and prospectively at the time of study follow-up. Furthermore, no specific questionnaire was used. Indeed, performing the suggested investigations 5 years after surgery would have not added much to the results of such a study. We found 18.4% of metaplasia on the histological analysis and only an insufficient weight loss at the time of follow-up was significantly associated with the risk of metaplasia.

In summary, while we do understand the concern for a more objective evaluation of GERD before and after SG, we believe that the main results of our study on BE are not to be considered as vitiated, and the adoption of a systematic endoscopic exploration long term after SG especially in young patients should be seriously considered beyond 5 years of follow-up.

### Compliance with Ethical Standards

**Statement of Informed Consent** This is a Letter to the Editor in which we do not directly involve human beings.

**Statement of Human and Animal Rights** This is a Letter to the Editor in which we do not directly involve human beings or animals.

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