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LETTER TO EDITOR/LED REPLY

Gastric Migration After Bariatric Surgery

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Intrathoracic migration of the gastric component of bariatric surgery is an interesting phenomenon. It is underrecognized and underreported. Although migration can occur after any bariatric procedure with hiatal dissection, it is more prominent after the most common bariatric procedure, i.e., sleeve gastrectomy. Thus, more attention needs to be paid to this growing phenomenon.

Although the title of "gastric migration crisis in bariatric surgery" is an attractive and descriptive title [1], several points need to be clarified.

A hiatal hernia found in the postoperative period could be a hiatal hernia that was missed during or developed after the original bariatric procedure. However, when we described the ITSM [2], we were particularly describing the gastric sleeve that was intraabdominal during the sleeve gastrectomy procedure then migrated up some time after the surgery. The documentation of the staple line of the gastric sleeve above the diaphragm explains this upward migration of the upper part of the gastric sleeve with its staple line up into the chest with de novo formation of hiatal hernias and not a hiatal hernia that was missed at the original procedure.

The mechanism of hiatal hernia formation is the same in obese vs. non-obese: a weak intraabdominal fixation of the stomach and upward migration through an enlarged hiatal defect into the chest by an increased intraabdominal pressure.

Another point that we do not agree with the above letter is regarding the diameter of the migrated gastric sleeve in relation to esophageal diameter as a predisposing factor for migration.

Whether the sleeve is wider or narrower than the esophagus does not explain the migration as the normal stomach that is much wider than the esophagus still can herniate up into the chest.

We agree about the abdomino-thoracic pressure gradient as a facilitator for upward sleeve migration. However, it is the short esophagus not the contractile forces of the esophagus that can predispose to transhiatal herniation [3].

Not all cases of sleeve migration present with symptomatic reflux, as sleeve migration can present with epigastric pain or dysphagia.

Several image modalities can diagnose ITSM including CT scan, whether 2D or 3D and UGI study. A post postoperative UGI, although it will show hiatal hernias, may have a difficulty in showing a staple line above the diaphragm—a key feature in differentiating preexisting vs. de novo hiatal hernia.

The risk of GERD after sleeve gastrectomy increased the interest of routine hiatal dissection during sleeve gastrectomy looking for hiatal hernias. This hiatal dissection compromises the anti-reflux mechanism and can contribute to postoperative sleeve migration. We recommend selective rather than routine hiatal dissection. This will keep the hiatal fixation and minimize the risk of postoperative gastric sleeve migration.

Regarding migration of the gastric pouch in gastric bypass, whether one anastomosis or Roux en Y, there is no published data about the downward traction of the gastrojejunostomy as a preventive mechanism against gastric migration.

Intraoperatively, the presence of hiatal hernias mandates intraoperative repair to correct the preexisting GERD [4]. Mere retraction of the hiatal hernia without crural repair means 100% recurrence of hiatal hernias. This is not acceptable.

The main explanation of GERD improvement after RYGBP is the fact that the small gastric pouch of the gastric bypass produces a small amount of acid while the gastric remnant acid is diverted from the GEJ. In addition, diverting the bile downstream explains the non-occurrence of bile reflux after RYGBP.

We disagree with the author regarding "the anti-reflux property of OAGB is attributed to the low intragastric pressure and the neutralizing effect of bile." Actually OAGB-MGB is associated with a high incidence of both acid and bile reflux. After single anastomosis gastric bypass, the total number of non-acid episodes revealed a significant increase postoperatively.

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Although the number of acid reflux episodes decreased, the duration of the episode increased [5].

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Compliance with Ethical Standards

Conflict of Interest The author declares that he has no conflict of interest.

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