Hypercholesterolemia: A metabolic effect after the gastric bypass that still needs to be defined

Hipercolesterolemia: un efecto metabólico después del bypass gástrico que aún falta por definir

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To the editors:

We have read with great interest the work published by Dr. José D. Hernández-Marín, et al.¹ in number 4 of volume 86, 2018, of this journal, which reports the metabolic effects in obese patients undergoing gastric bypass surgery in their center.

We want to congratulate the authors for the good results they have achieved in these 5 years of experience.

Indeed, gastric bypass achieves quite good metabolic results; however, some long-term effects appear not to have been accurately defined to current date, specifically total (TC) and low-density lipoprotein (LDL) cholesterol values. In this regard, we would like to add a couple of comments. This metabolic effect is a point of debate since it has not been possible to determine whether or not surgically intervened patients should continue to consume statins for the simple fact of having been operated. Currently, this is determined according to LDL-C values, and therefore it becomes highly relevant to analyze this metabolic effect.

The authors were able to observe TC and LDL-C values at 12 months of follow-up in both study groups, in patients with and without type 2 diabetes, and

report a reduction that was statistically significant. These results are consistent with some published studies.

One of the first meta-analyses that assessed the long-term effect of bariatric surgery reported favorable results in the lipid profile in the subgroup of patients treated with gastric bypass, with an improvement in dyslipidemia at 10 years of follow-up in more than 90% of patients².

In a study published in 2011 that looked into the effect of gastric bypass in 215 patients, with a follow-up of up to 42 months, a decrease in TC was reported, and even when comparing gastric bypass with adjustable gastric band, it was superior, with the difference being statistically significant³; in spite of having been a retrospective study that was not designed to specifically explore this metabolic effect, it was a relevant finding.

However, despite the widespread perception of good results in terms of lipid control with bariatric surgery, some studies have not coincided with these results.

One study that assessed the effects of gastric bypass at 1 year of follow-up did not achieve statistical significance in the decrease of LDL values⁴.

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In another study published in 2004, with one of the longest reported follow-ups, the results of gastric bypass were compared with medical management and lifestyle changes, and the number of patients with hypercholesterolemia was very similar in both groups at 2 years ($n = 504$) and even after 10 years of follow-up ($n = 135$)⁵.

This is why, as the authors of the paper themselves acknowledge, it is worth to continue carrying out an evaluation of the metabolic effects in the longer term, since this will determine whether some parameters remit with the surgical strategy or if they remain altered.

Finally, we would like to congratulate again the authors of this publication for their so remarkably favorable results in their patients treated with gastric bypass.

Conflict of interests

The authors declare that they have no conflicts of interest.

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