



Commentary to “Efficacy of Endoscopic Interventions for the management of obesity: A meta-analysis to compare Endoscopic Sleeve Gastroplasty, AspireAssist and Primary Obesity Surgery Endolumenal”

Zvi H. Perry^{1,2} 

Published online: 2 April 2019

© Springer Science+Business Media, LLC, part of Springer Nature 2019

I wanted to thank the editor for this opportunity to write this commentary. These days, there is an explosion of endoscopic bariatric procedures—looking at PubMed, one will find more than 4000 different articles on this subject. Some see this endoscopic bariatric therapy (EBT) as the new menace in the field, while others see it as a new addition to the treatment arsenal for obesity [1]. Kumar has noted that EBT has the potential to be more effective than conservative measures, and more available and less invasive than bariatric surgery [2]. If we remember that in the USA the average BMI is 29 [3] (i.e., overweight or more is the grim reality for half of the population of the USA), we surely need to find newer, cheaper, and more accessible procedures to deal with obesity. Thus, the current article “Efficacy of Endoscopic Interventions for the management of obesity: A meta-analysis to compare Endoscopic Sleeve Gastroplasty, AspireAssist and Primary Obesity Surgery Endolumenal” is so important. It describes a systematic review and meta-analysis of three new and exciting endoscopic procedures—endoscopic sleeve gastroplasty (ESG) and primary obesity surgery endolumenal (POSE) which are two plication procedures for the management of obesity, and the AspireAssist which is an endoscopically placed percutaneous gastrostomy tube, a skin port, and an accessory device. The authors have found 12 studies with 1149 patient using these endoscopic

procedures, with excellent results (at 12 months, %EWL was 52.75 for the ESG, 44.91 for the POSE, and 50.85 for the Aspire), and they conclude that these devices have excellent efficacy in achieving significant and sustained weight loss up to 1 year.

But, and there is always a but, when looking at the data and at the research methods, one needs to be a bit more skeptic—not due to the tremendous work the authors have done, but to our interpretation of it.

We were taught in med school that there is a pyramid of evidence-based medicine that its base is studies like case reports and case series and that there are better study designs—the observational ones (like the case-control or the cohort design) and on the top of this pyramid is the newly used paradigm—the systematic review and the meta-analysis [4]. But (and again this ill but), this study design is as good as the studies that were used to forge it. And if we remember that we use systematic reviews and meta-analysis due to the fact we have scarce evidence in that field to start with [5], this makes this study design very problematic and our inferences and interpretations from it need to be handled with great care [4, 5]. If we will go back again to the current study, we can see that all we had are 12 studies, some of which engulfed as little as 11 subjects. Some of these studies had very short follow-up times, and in most cases, the follow-up period was a year or less. The studies included, as per the results, show large variability, which raises the question if you need not to discard some of the studies which might be less valid and reliable, but than your ability to conduct a valid meta-analysis is hampered.

Thus, we are left with a sense we are not yet satisfied in our understanding and ability to deploy EBT as a long-term therapy for obesity. But the current article does lead us to believe that short-term results for these therapies are valid and that, as always, we need further studies to give us more than a belief

✉ Zvi H. Perry
zperry@bgu.ac.il

¹ Surgical Ward A, Soroka University Medical Center and The Public health department, Ben-Gurion University of the Negev, Beersheba, Israel

² Steinberg Centre for Simulation and Interactive Learning, Surgical division, McGill University Hospitals, 3575 Parc avenue, Montreal, QC, Canada

about these procedures. This means that we, as bariatric specialists, need to further study and immerse ourselves in these techniques and their research, so we will be able to give our future patients a reliable and valid answer when they come to us with the basic question every physician encounter when s/he is taking care of a patient—what is the most appropriate therapy for that patient’s overweight/obesity problem.

Compliance with Ethical Standards

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

Informed Consent Statement Does not apply.

References

1. Sullivan S, Edmundowicz SA, Thompson CC. Endoscopic bariatric and metabolic therapies: new and emerging technologies. *Gastroenterology*. 2017;152(7):1791–801.
2. Kumar N. Weight loss endoscopy: development, applications, and current status. *World J Gastroenterol*. 2016;22(31):7069–79.
3. Ward ZJ, Long MW, Resch SC, et al. Redrawing the US obesity landscape: bias-corrected estimates of state-specific adult obesity prevalence. *PLoS One*. 2016;11(3):e0150735.
4. Harris JD, Brand JC, Cote MP, et al. Research pearls: the significance of statistics and perils of pooling. Part 3: pearls and pitfalls of meta-analyses and systematic reviews. *Arthroscopy*. 2017;33(8):1594–602.
5. Lang A, Edwards N. Perils of systematic reviews. *CMAJ*. 2005;172(7):855. author reply 855-6

Publisher’s Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.