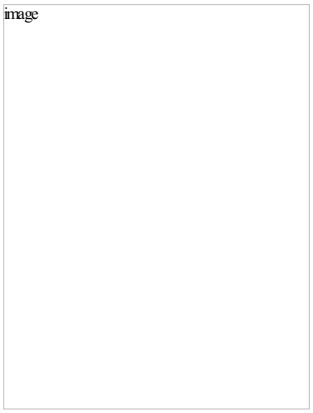

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Comment on: Antral resection versus antral preservation during laparoscopic sleeve gastrectomy for severe obesity: systematic review and meta-analysis

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I have read with interest the paper by x et al, who studied 8 published reports representing collectively 619 patients including six randomized controlled trials.[1] Overall Results were excellent with a sleeve gastrectomy resulting in a mean percentage excess weight loss at 12 months of 62%, and 67% at 24 months. Antral resection was associated with significant improvement in percentage excess weight loss at 24 months follow-up: mean 70% vs. 61%.[1] This is the first time that a collective assessment of randomized studies on this question demonstrate clearly that more antral resection is associated with better medium-term weight loss without significant increase in surgical complications. I say more antral resection because the stand alone sleeve gastrectomy had already a "hemi-antrectomy" with a lower triangular resection as recommended in the last 3 International Consensus Conference on Sleeve Gastrectomy.[3,4,5] In 2009, the recommendation was 5 cm, and it got smaller (closer to 4cm) starting in 2011.[2,3] This resection had gone from about 8 cm in the classical duodenal switch where the antrum was preserved; to the 6 cm initial stand alone sleeve gastrectomy to the 4cm lower hemi-antrectomy for the last 7 years. Hence, an extra 2 cm will make a very little difference to what is currently known and recommended. It may have a greater impact for diabetics, as the gastric emptying is likely to be affected with such antral amputation as demonstrated by higher insulin production. The report is consistent with studies that report more weight loss with greater volume of stomach resected, using multi-detector CT to measure gastric volume before and after sleeve gastrectomy, weight loss at 3 months correlates with the volume of the excised stomach but not with the sleeve.[7]

This is different than the parietal gastrectomy (not the current sleeve) performed as part of a duodenal switch as described by Marceau et al, at 8 cm from the pylorus, or commonly using branches of the anterior Latarjet nerve, the so called crow's foot, known to be approximately to a point on the greater curvature about 7 cm from the pylorus.[13] This does not correspond to the border between true acid secretion and mucosal antrum, which is closer to 10-11 cm from the pylorus. Hence, sleeve gastrectomy at 5-6 cm already achieved a hemi-antrectomy. To further complicate the matter, the electrical and physiological contractions of the antrum are closer to the pylorus than originally thought. A Recent study on electrophysiological corpus-antrum boundary shows a clear transition in slow-wave velocity which occurs more distally, and closer to the pylorus (4 cm), hence touching this portion within 4 cm will disrupt mechanical mixing and emptying.[9]