

USING BOTULINUM TOXIN FOR THE TREATMENT OF GASTROPARESIS (GP) FOR THE SELECTION OF PATIENTS WITH HIGHER CLINICAL SUCCESS, IMPROVED QUALITY OF LIFE (QOL), AND IMPROVED SOCIAL FUNCTIONING POST GASTRIC PERORAL ENDOSCOPIC MYOTOMY (GPOEM)

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Background/Objective:

While G-POEM remains an effective and exciting treatment for GP patients, predictors of clinical success remain poorly characterized. Botox injection of the pylorus prior to committing to G-POEM can help differentiate those who might have a favorable clinical response to this procedure in patients with GP.

Methods:

To evaluate the utility of Botox injection prior to G-POEM, 124 patients with clinically diagnosed GP who underwent a GPOEM were assessed in this retrospective cohort study. All G-POEM procedures were conducted at a single center and were completed between February 2018 and May 2023. Patients who had received intrapyloric Botox injection (n=79) had QoL and clinical success rates compared to patients who received other treatment options (n=45). Results were assessed at 1-, 3-, 6-, 12-, 24-, 36-, 48-months post G-POEM.

Results:

When assessing symptom severity, the difference between the change in GCSI values for Botox patients and patients receiving other prior therapy was statistically significant at 6 months post-GPOEM; +1.27 for Botox patients vs +0.55 for other treatments (p-value of 0.03). At this 6-month checkpoint, 64% of the Botox group achieved clinical success compared to 37.5% for the other treatment group. When comparing QoL, intrapyloric Botox injection has statistically significant improvements in SF-36 total score at 1, 3-, 6-, 12-, and 36-months post G-POEM, while patients receiving other treatments had no statistically significant improvements in their SF-36 total scores.

Conclusion:

We hypothesize that clinical improvement on pre GPOEM Botox selects patients with a higher component of pyloric spasm who end up responding more favorably to G-POEM.

Scientific/Clinical/Policy Impact and Implications:

Intrapyloric Botox injection is technically feasible in almost all patients with GP and does not require special expertise, training, or equipment; therefore, this should be strongly considered prior to referring a patient for G-POEM.