The Long-term Efficacy and Safety of Pyloroplasty Combined with Gastric Electrical Stimulation- A Single Academic Center Experience

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Introduction: Gastric electrical stimulation (GES) improves refractory gastroparesis (GP) symptoms, but this therapy has minimal effect on the gastric emptying (GE). To further address this therapeutic deficiency, we have added Pyloroplasty (PP) to GES implantation. This study assesses the efficacy/safety of combining surgical PP with GES and the correlation of changes in GE with improvement of GP symptoms after combining GES and PP.

Materials and Methods: Using robotic system, 28 GP patients underwent GES implantation together with the Heineke-Mikulicz PP. Total GP symptoms scores (TSS) were obtained by using a 5-point Likert scale at baseline and the last follow-up visit, ranging from 3 to 38 months. The 4-hr scintigraphy GE test was conducted before surgery and at follow-up visits.

Results: 3 patients died from their comorbidities in 3, 5 and 14 months after surgeries. Mean TSS was significantly decreased from 3.16 to 0.94 points. The statistically significant trend of decreased symptoms was sustained after categorizing the patients to diabetic and idiopathic gastroparetics. After surgery, the mean retention of the radiolabeled meal was decreased by 18.1%, 29.6%, 30.4% and 48.7% at 1, 2, 3 and 4 hours, respectively, while 60% of GP patients normalized their rate of GE at the follow-up visit. The weight was stable and there was significant reduction in days of hospitalization from 57.3 patient to 6.2 days/patient. There were not post-surgical complications or technical problems.

Conclusion: By combining GES and PP, we were able to address both the subjective and objective goals in treating drug refractory gastroparesis.

Role of HMGB1 Inhibitor Glycyrrhizin in Diabetic Complications

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Introduction: Diabetic nephropathy and sensory neuropathy are the most debilitating complications of diabetes which greatly affects the quality of life of the patients. Recent evidence suggests Continued on page 16