MORTALITY IN PATIENTS WITH GASTROPARESIS: A COMPARISON BETWEEN PATIENTS WITH AND WITHOUT DIABETES.

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Introduction: Gastroparesis (GP) is an often serious disorder of gastric neuromuscular function, but the long term survival of gastroaesis is unknown. We reviewed two studies of GP patients with and without diabetes either on long term anti emetic therapy or implanted with Gastric Electric Stimulation (GES) Devices to examine mortality. Studies: First study was of 32 GP patients, treated with ondansetron (Zofran®) alone, promethazine (Phenergan®) alone, or both , followed for up to 10 years (1992-2002). Six patients had diabetes mellitus and 26 had Idiopathic gastroparesis. Although long-term anti emetic therapy was effective in controlling nausea and vomiting, 4 diabetic and 4 idiopathic gastroparetic patients had died over 10 years, a mortality rate of 66% compared to 15% in the idiopathic group. In the second, 156 of 214 patients with symptoms of drug refractory gastroparesis were treated with GES devices over a period of 13 years (1992-2005). Patients were subdivided into 3 groups: 107 idiopathic group, 32 diabetic group and 17 post surgical gastroparetic patients, all receiving GES devices. At latest follow-up (median 4 years for 5,568 patient months) most patients implanted (135 of 156) were alive with intact devices, had significantly reduced GI symptoms, reported improved health related quality of life, and had evidence of improved gastric emptying. A total of 26 out of 214 patients (12.1%) died. Among patients with permanent device implantation 21 out of 156 died (13.4%); this included 5/32(15.6%) DM and 16/124 (12.9%) non-DM. Patients consented but not implanted served as controls: of these, 5 of 25 (20.0%) died 4/5 with DM (80%) and 1/5 (20%) without DM. Cause of death was primarily due to underlying disease and was not determined to be directly related to the GES device in any patient. Death among patients implanted was similar to those not implanted for non-diabetic patients (16/124= 12.9% vs. 1/5=20%) but lower for GES diabetic patients (5/32=15.6% vs. 4/5=80%; p < 0.05). Conclusions: Data from two recent studies demonstrates a definite improvement in symptoms of gastroparesis in diabetic patients with long term anti-emetic therapy as well as permanent Gastric Electric Stimulation Devices. There appears to be a significantly higher mortality in diabetic patients as compared to gastroparetic patients with idiopathic and post surgical disease. The high long-term mortality in patients with diabetes mellitus suggests that gastroparesis may be a marker of severe systemic disease for certain patients. In addition, the implantation of a GES device in DM GP appears to be associated with a lower mortality.