

## **Use of gastric electrical stimulation (GES) in children with chronic nausea and vomiting**

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### **Abstract**

**Introduction:** Clinical trials have shown that GES is an effective and safe treatment for intractable nausea and vomiting in adults. However, less is known about the efficacy and safety of this treatment in the pediatric population.

**Aim:** We performed a small prospective study to assess the feasibility and effectiveness of GES in children with refractory nausea and vomiting.

**Method:** Six children underwent surgical insertion of gastric stimulators for chronic unexplained nausea and vomiting; all were females. Median duration of symptoms prior to GES insertion was 2.25 years (range 1.25-11 years). Median age at the insertion was 15.5 (range 13-18 years). Five of six patients had proven gastroparesis on gastric emptying studies. Electro-gastrography showed gastric dysrhythmias in all six patients (increased episodes of tachygastria in three, bradygastria in one and mixed dysrhythmias in two). None were diabetics. Surgical approach was via laparotomy in two patients and laparoscopic surgery in the remaining four patients (two robotic-assisted laparoscopic).

**Results:** Statistically significant reduction in symptoms (nausea, vomiting, abdominal pain and early satiety) and requirement for nutritional support following GES insertion was observed. There were no peri or immediate/early post-operative complications.

**Conclusion:** Our study shows GES to be an effective and safe treatment in children with intractable nausea and vomiting. However, the small sample size is a significant limitation of the study. Despite this, the results show that further investigation of this novel treatment is required.

### **Biography**

Dione Lothar has completed her Medical Training at University of Birmingham, England. She has subsequently commenced Surgical Training and is a Member of Royal College of Surgery, England. She has presented at a number of conferences at both national and international level.

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