Electrical Stimulation (ES) of the Lower Esophageal Sphincter (LES) to address Gastroesophageal Reflux Disease (GERD)

Clinic for Visceral Surgery and Medicine

Introduction:
• Fundoplication:
  • effective treatment option for GERD with good long-term efficacy
  • associated with adverse effects, mainly dysphagia, pain, gas-bloat syndrome and diarrhea
  • ES of LES possible alternative as it lacks those complications and improves motility

Methods:
• Prospective analysis of patients receiving ES (Endostim®) of LES for GERD without prior gastric surgery, hiatal hernia >3cm, and follow-up of at least 6 months btw 01/13 – 10/16
• Laparoscopic placement of electrodes, posterior hiatalplasty, ES with 20 Hz, 215 µs, 3 – 8 mA in multiple 30-minute sessions
• follow-up with daily symptom and medication diaries, 24h-impedance-manometry after 6 months and gastroscopy after 12 months

Results:
• 19 patients, median age 43 years (min 26 – max 72), 9 female (47%)
• peri- or postoperative complications: hematoma 1 (5%)
• Median follow-up 12 months (6 – 48, no patient lost to follow-up)
• Use of PPI 100% preop to 16% postop

Conclusion:
• ES of LES leads to enhanced LES pressures and decreased esophageal acid exposure
• safe and effective treatment for GERD without typical adverse effects of traditional antireflux surgery