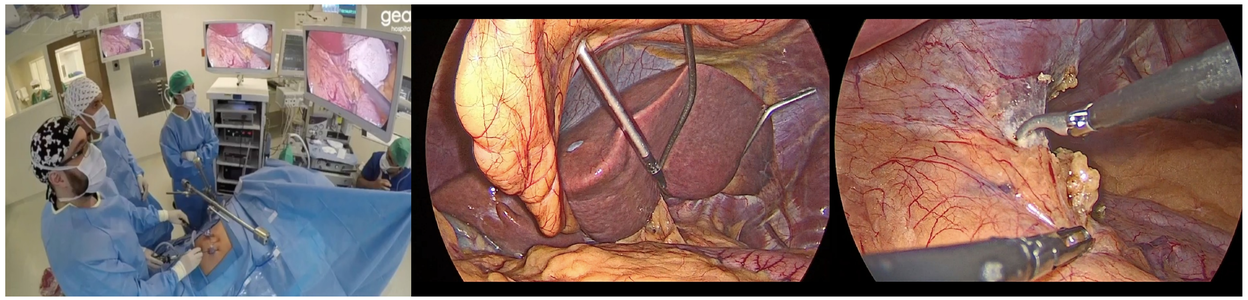
PILOT STUDY: SAFETY, FEASIBILITY AND RESULTS OF THE MINI-LAPAROSCOPIC (3MM) COMPLETE FIXED NON-DEFORMABLE FUNDOPLICATION

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Introduction: The complete fixed non-deformable fundoplication or Gea fundoplication created for the treatment of GERD has the aim of ensure that the anatomical modifications around the LES remain undeformable; fixing the stomach, the GEU and performing a complete fundoplication to the diaphragmatic aponeurosis and the crura using approximately 13-16 knots; different studies have proven comparable postsurgical pain; less short term dysphagia; erosive GERD and Deemester score; and higher pressure and longer LES length, compared to other fundoplications.



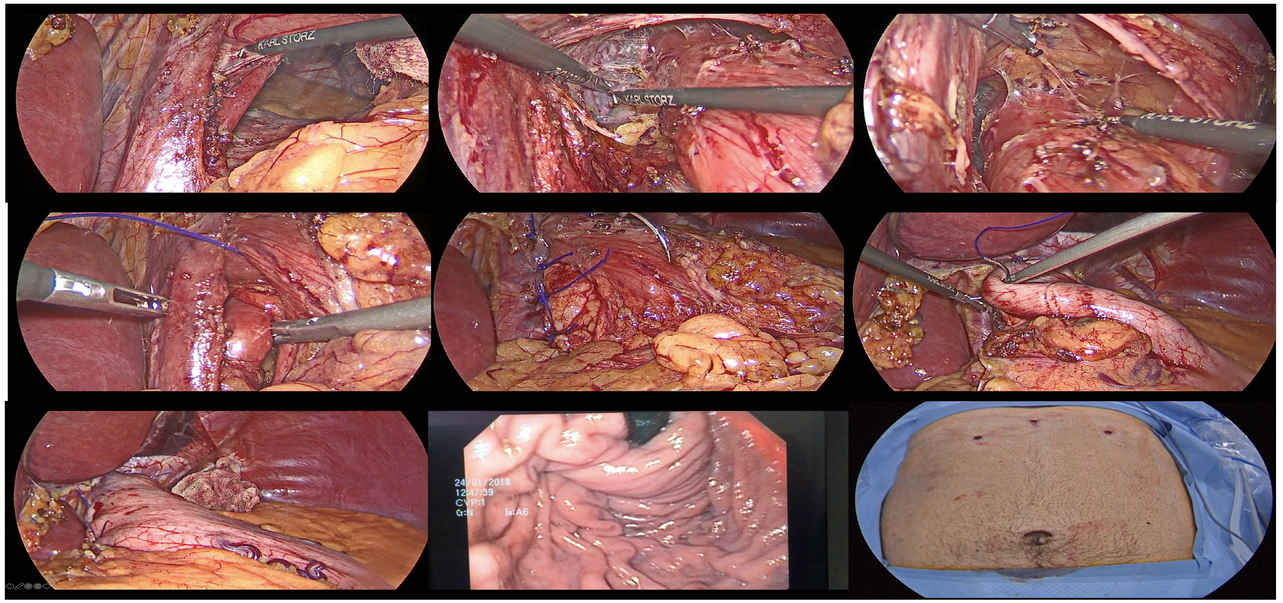
The development of minilaparoscopy has made it possible to perform procedures with less postoperative pain, less trauma to the abdominal wall, better cosmetic results and ergonomics to the surgeon. The aim of this study is to prove the safety and feasibility of the complete fixed non-deformable fundoplication using a complete mini-laparoscopic approach.

Methods: A retrospective study evaluated the minilaparoscopic Gea fundoplications done between May 2018-November 2020. Demographic, endoscopic, physiologic and surgical variables were evaluated. Surgery was performed using a 10mm trocar for the telescope, two 3mm trocars and a Nathanson liver retractor of 2.5mm, with the dissection and procedure performed as the original technique, using extracorporeal Gea knots.

References
* Moreno M, Rojano M, Herrera JJ, Valdovinos MA, CordovaJA, Bravo C, Dominguez L Sanchez O (2012) Novel surgical concept in antireflux surgery: long-term outcomes comparing 3 different laparoscopic approaches Surgey, 15:84-93
* Moreno M, Magos FJ, Arcovedo R, Olachea P, Palacios JA, A Salazar, Ramirez ME, Herrera JJ (2004) Comparison of the performance of the Gea extracorporeal knot with the Roeder extracorporeal knot and the classical knot, Surg Endosc 18:157-160

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Results: 20 patients were included, 15(75%) were female, the mean age was 49.65(25-74). All patients presented typical symptoms and 9(45%) atypical, the mean time of symptomatology was 94.8(24-360)months. The endoscopic findings were Grade C esophagitis in 4(23.53%) patients and 8(53.33%) presented Hiatal Hernia, mean length of 3.5(3-7)cm; Effective primary peristalsis median was 80(30-100), a mean length of the LES of 2.94(1-4)cm and a mean LES pressure of 10.36(3.4-24.5)mmHg. The mean DeMeester score was 38.22(8.1-144.9), patients with a normal DeMeester score had an abnormal exposition to Non acid reflux. All patients presented positive association index and probability of association. Eighteen(90%) were primary fundoplication with a mean operative time (OT) of 167.77(70-220)min and estimated blood loss (EBL) of 29.44(5-100)cc; 2(10%) were re-fundoplication with a mean OT of 337.5(290,385)min and an EBL of 90(20,160)cc. All the primary patients were discharged the same day (ambulatory), while the re-fundoplications were discharged after 24hrs of surgery. Patients required only 3-5days of mild oral analgesics. Non transoperatory or postoperatory complications where reported.

Conclusion: Minilaparoscopic(3mm) complete fixed non-deformable fundoplication is a safe and feasible procedure; with lower use of analgesics, less EBL, smaller incisions, less trauma, and managed ambulatory; but with a higher operative time.