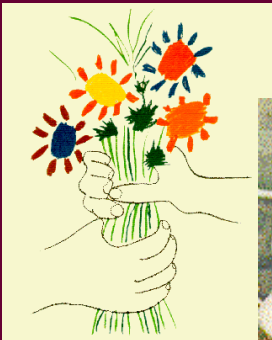


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*Laparoscopic reoperation for
correction of dysphagia following
mini-invasive anti-reflux surgery*

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INTRODUCTION

Laparoscopic fundoplication represents at present the treatment of choice for gastro-esophageal reflux disease (GERD) refractory to medical therapy

INTRODUCTION 2

- Complications of surgery for GERD include dysphagia, gas-boat syndrome, or recurrent GERD
- Redo surgery is needed in cases non-responsive to conservative treatment (2-6%), and may be attempted with a mini-invasive approach

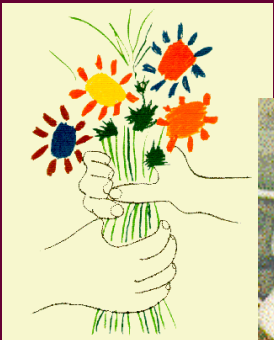
STUDY DESIGN

We performed a retrospective study of the patients who underwent laparoscopic surgery for GERD in the last three years at our institution, with special reference to the cases in which reoperation was needed, to determine which preoperative findings are predictive of poor outcome, and the results of revisional surgery

METHODS

Preoperative work up:

- Clinical history
- Esophagogastroduodenoscopy (EGDS)
- Esophageal manometry
- 24-hour pH studies
- Radiological evaluation



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Esophageal manometry: technical details

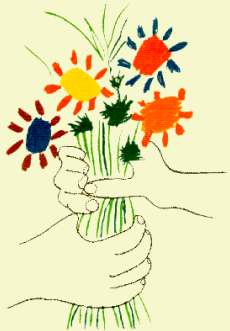
- Stationary manometry
- Water-perfused capillary system
- Six-port radial manometry catheter
- Port location: two at the LES, 3 in the esophagus (5 cm intervals), one in the stomach
- Ten wet and 10 dry swallows

Clinical Assessment

- Revision of the medical records
- Follow up through standard questionnaire
- Objective investigations for symptomatic patients
- Repeat preoperative work up before revisional surgery

INDICATIONS TO SURGERY

- GERD refractory to medical therapy (12-16 weeks with H₂ antagonists or proton pump inhibitors and cisapride)
- GERD responsive to medical therapy in young patients willing to avoid lifelong medication



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Details of primary surgery

- Split-leg, anti-Trendelemburg position
- Five 10-mm ports
- Thirty-degree laparoscope
- Two to 3 cm long laparoscopic Nissen-Rossetti procedure, using heavy-gauge nonabsorbable sutures
- Hiatus repair: when needed
- Calibration: 60 F Maloney dilator

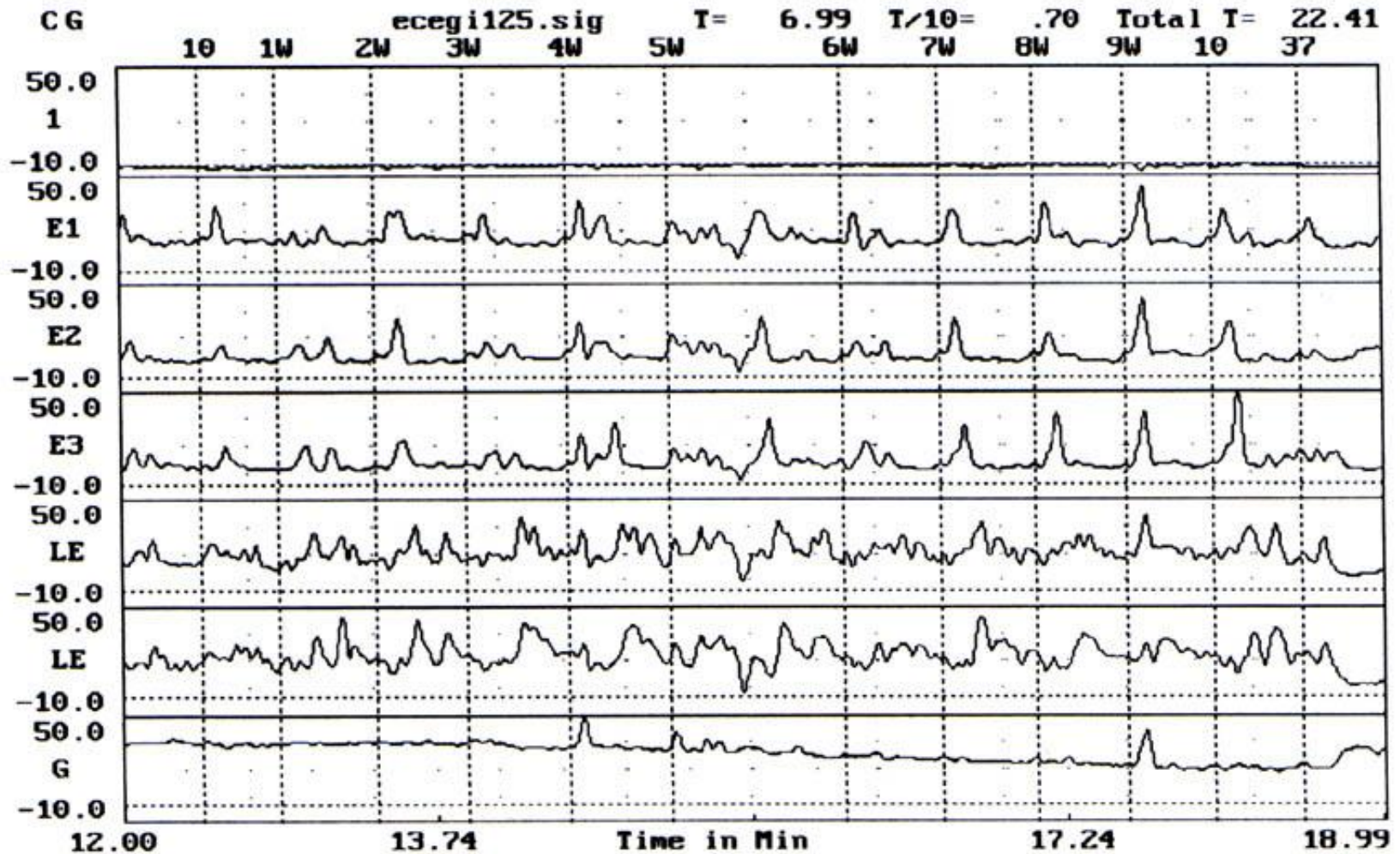
RESULTS

- Sex: 9 males, 9 females
- Median age: 53 (range: 30-72)
- Operating time (min): 120 (range 90-160)
- No mortality
- No perioperative complications
- Complete symptomatic relief in 12 patients
- Mild symptoms in 3 patients
- Intractable dysphagia requiring surgical correction in three patients

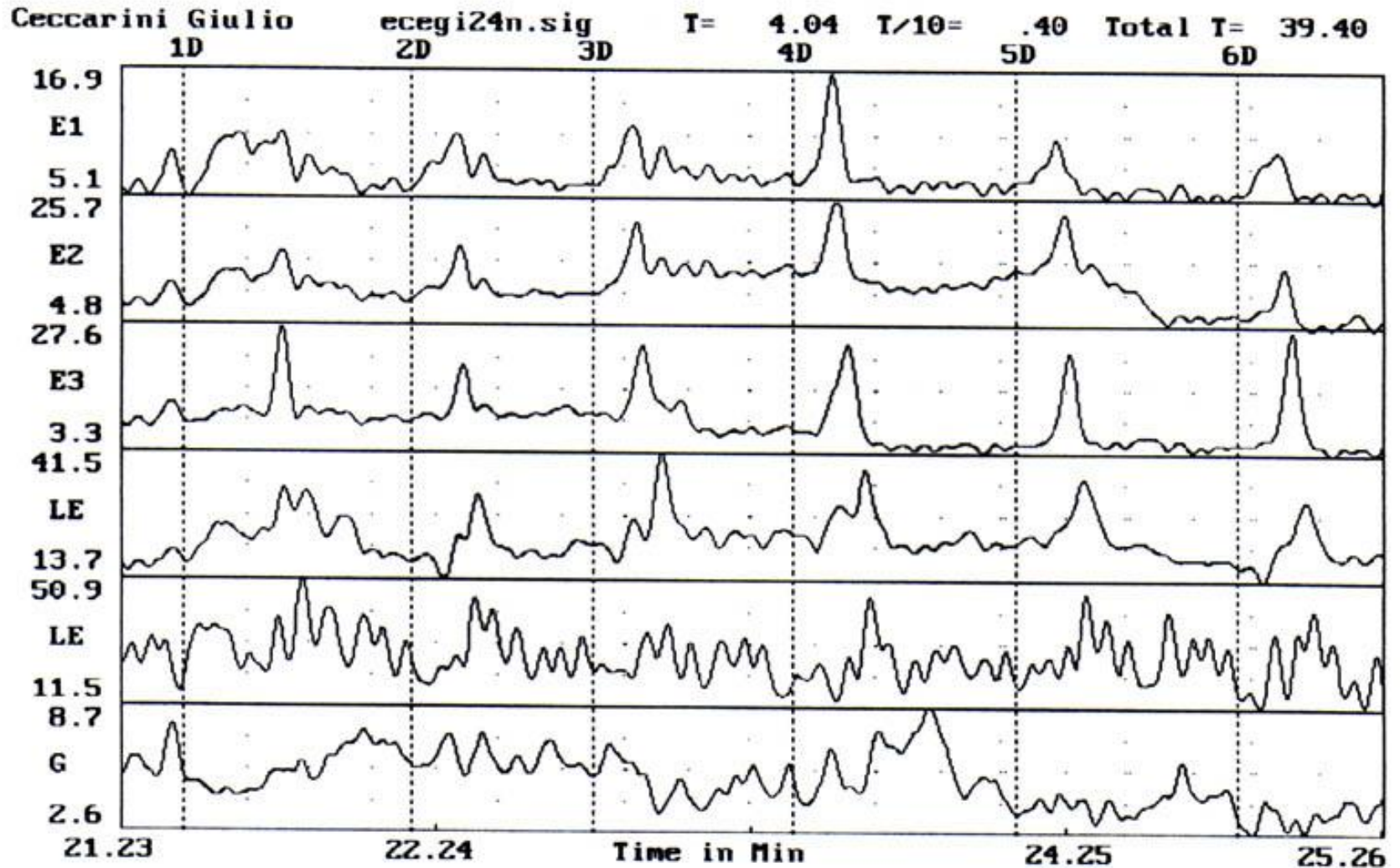
Revisional surgery

- Patients: one male (age 72), two females (age 39, 68)
- Time from previous surgery: 2, 5, 9 months
- Indications: intractable dysphagia
- Preoperative findings: unrecognized esophageal dysmotility, as revealed by esophageal manometry

Preoperative manometry



Postoperative manometry

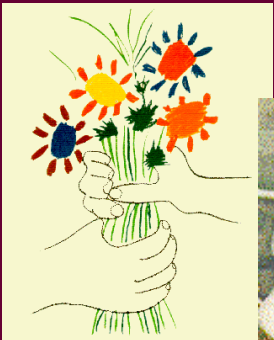


Results of revisional surgery

- Procedures: 2 laparoscopic conversions from Nissen to Toupet, one adhesiolysis
- Operating time: 125, 130, 150 minutes
- Good symptomatic outcome after Toupet procedure, partial relief after adhesiolysis
- Follow up: 2 to 9 months

CONCLUSIONS

- Laparoscopic reoperative surgery is feasible and effective
- Careful patient selection, on the basis of detailed preoperative work up, with special reference to esophageal dysmotility disorders, can help preventing unsuccessful surgery for GERD



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