

Χειρουργική της Γαστροοισοφαγικής Γωνίας : ΓΟΠ και Αχαλασία

Δημήτριος Θεοδώρου
Χειρουργός

*Μονάδα Χειρουργικής Ανώτερου Πεπτικού
Ά Προπαιδευτικής Χειρουργικής Κλινικής
Πανεπιστημίου Αθηνών*

Ορισμός ΓΟΠ

- Είναι η Παλινδρόμηση Γαστρικού περιεχομένου (ανεξάρτητα από την υφή) στον Οισοφάγο

και Φυσιολογικό Φαινόμενο

Έκταση

- 44% μηνιαία
- 30% εβδομαδιαία
- 7% καθημερινά

Ανατομία

■ Ζώνη Αυξημένης Πίεσης Κατώτερου Οισοφάγου:

Φρενοοισοφαγικός Σύνδεσμος

Ενδοκοιλιακό Τμήμα

Κυκλοτερής Μυϊκή στιβάδα Οισοφάγου

Μυϊκός Στομάχου

Ανατομία

- **Ζώνη Αυξημένης Πίεσης Κατώτερου Οισοφάγου:**

Πίεση ηρεμίας >6mmHg

Μήκος ολικό 2 εκ

Μήκος ενδοκοιλιακό 1 εκ

Συμπτώματα

- **Τυπικά**
Καύσος
Αναγωγές
Πόνος

- **Άτυπα**
ΩΡΛ
Δυσπεπτικά
Αναπνευστικά

Θεραπεία

■ Συντηρητική

Αλλαγές τρόπου ζωής

Αναστολείς αντλίας πρωτονίου

■ Ενδοσκοπική

■ Χειρουργική

Θολοπλαστική Nissen

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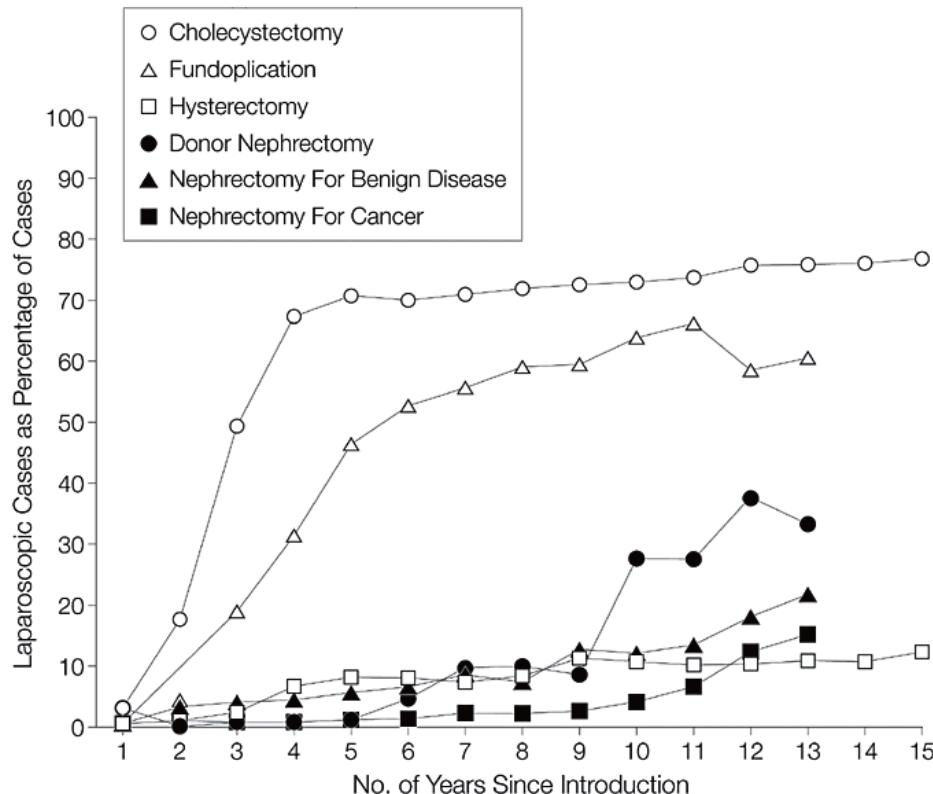


Figure. Comparison of Diffusion Curves for Laparoscopic Procedures

Long-term Outcome of Medical and Surgical Therapies for Gastroesophageal Reflux Disease

Follow-up of a Randomized Controlled Trial

Conclusion This study suggests that antireflux surgery should not be advised with the expectation that patients with GERD will no longer need to take antisecretory medications or that the procedure will prevent esophageal cancer among those with GERD and Barrett esophagus.

Table 3. Long-term Outcomes of GERD in the Medical and Surgical Treatment Groups*

Outcomes	Medical Treatment Group	Surgical Treatment Group	P Value
GRACI score while taking medication, mean (SD)	83.1 (13.7) [n = 74]	78.7 (9.5) [n = 29]	.07
GRACI score while not taking medication, mean (SD)	96.7 (21.4) [n = 68]	82.6 (17.5) [n = 27]	.003
Endoscopic grade of esophagus, mean (SD)	1.89 (1.15) [n = 63]	1.80 (0.95) [n = 20]	.76
24-h esophageal pH <4, mean (SD) %	31.0 (61.6) [n = 38]	17.1 (41.1) [n = 10]	.50
Using antireflux medications regularly, %			
Any antireflux medication	92 [n = 90]	62 [n = 37]	<.001
Proton pump inhibitors	64 [n = 89]	32 [n = 37]	.002
Histamine ₂ receptor blockers	65 [n = 88]	41 [n = 37]	.02
Prokinetics	15 [n = 86]	8 [n = 36]	.39
≥1 Antireflux operation since end of original study, %	10 [n = 90]	16 [n = 38]	.38
Treatment for esophageal stricture since end of original study, %	8 [n = 90]	14 [n = 37]	.46

*GERD indicates gastroesophageal reflux disease; GRACI, Gastroesophageal Reflux Disease Activity Index. Numbers in brackets are the sample sizes for each outcome.

Ενδείξεις

Multivariate Analysis of Factors Predicting Outcome After Laparoscopic Nissen Fundoplication

Guilherme M.R. Campos, M.D., Jeffrey H. Peters, M.D., Tom R. DeMeester, M.D., Stefan Öberg, M.D., Peter F. Crookes, M.D., Silvia Tan, M.S., Steven R. DeMeester, M.D., Jeffrey A. Hagen, M.D., Cedric G. Bremner, M.D.

good outcome (87%) and 26 had a fair or poor outcome. Three factors were significantly predictive of a successful outcome: an abnormal 24-hour pH score (odds ratio = 5.4; 95% confidence interval [CI] = 1.9-15.3), a typical primary symptom (odds ratio = 5.1; 95% CI = 1.9-13.6), and a clinical response to acid suppression therapy (odds ratio = 3.3; 95% CI = 1.3-8.7). We conclude that 24-hour pH moni-

Ενδείξεις

Long-Term Outcome of Antireflux Surgery in Patients With Barrett's Esophagus

Wayne L. Hofstetter, MD, Jeffrey H. Peters, MD, Tom R. DeMeester, MD, Jeffrey A. Hagen, MD, Steven R. DeMeester, MD, Peter F. Crookes, MD, Peter Tsai, MD, Farzana Banki, MD, and Cedric G. Bremner, MD

From the Department of Surgery, Division of Thoracic and Foregut Surgery, University of Southern California, Los Angeles, California

condition to be improved, and 97% were satisfied. Low-grade dysplasia regressed to nondysplastic Barrett's in 7 of 16 (44%), and intestinal metaplasia regressed to cardiac mucosa in 9 of 63 (14%). Low-grade dysplasia developed in 4 of 63 (6%) patients. No patient developed high-grade dysplasia or cancer in 410 patient-years of follow-up.

Guidelines for surgical treatment of gastroesophageal reflux disease

Dimitrios Stefanidis · William W. Hope · Geoffrey P. Kohn · Patrick R. Reardon ·
William S. Richardson · Robert D. Fanelli · The SAGES Guidelines Committee

Indications for surgery

When the diagnosis of reflux is objectively confirmed, surgical therapy should be considered in individuals who:

1. Have failed medical management (inadequate symptom control, severe regurgitation not controlled with acid suppression, or medication side-effects)

OR

2. Opt for surgery despite successful medical management (due to quality-of-life considerations, lifelong need for medication intake, expense of medications, etc.)

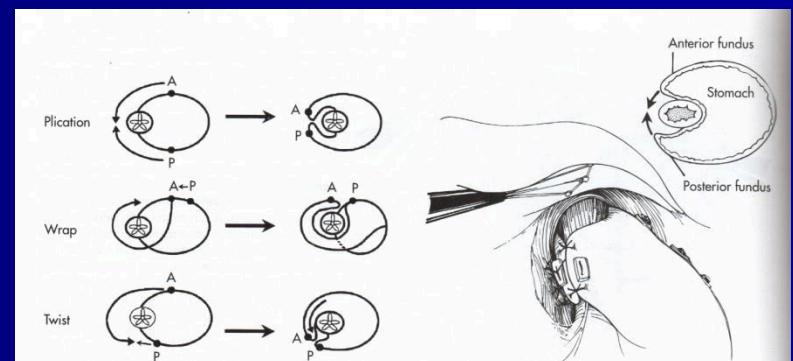
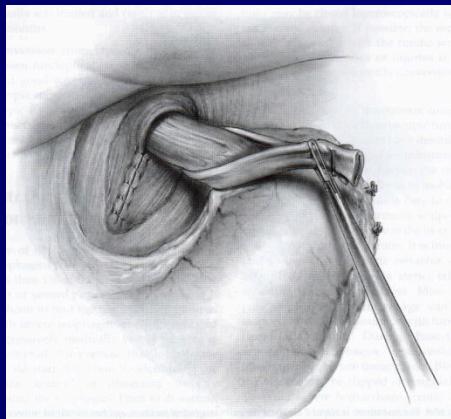
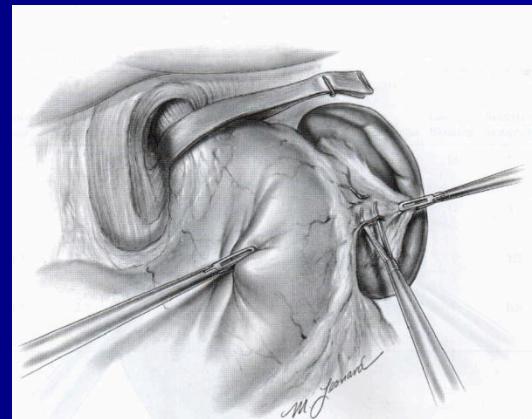
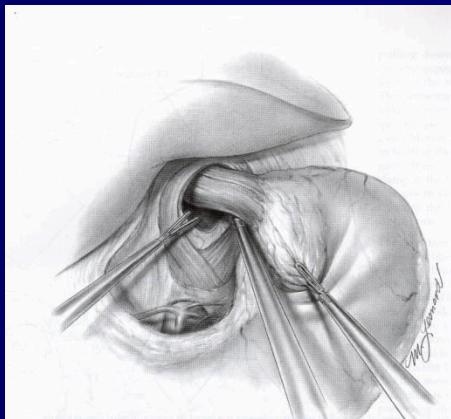
OR

3. Have complications of GERD (e.g., Barrett's esophagus, peptic stricture) [18, 19]

OR

4. Have extra-esophageal manifestations (asthma, hoarseness, cough, chest pain, aspiration) [20–23]

Τεχνικά Ζητήματα



Μακροχρόνια Αποτελέσματα

Laparoscopic Nissen Fundoplication: Clinical Outcomes at 10 Years

Jamie J Kelly, BM, FRCS, David I Watson, MD, FRACS, Kin Fah Chin, BM, FRCS,
Peter G Devitt, MS, FRCS, FRACS, Philip A Game, MBBS, FRCS, FRACS, Glyn G Jamieson, MS, FRACS

BACKGROUND: Laparoscopic Nissen fundoplication is now the most common operative procedure for treatment of gastroesophageal reflux disease, although longterm clinical outcomes after this procedure remain uncertain.

STUDY DESIGN: Outcomes for 250 patients who underwent Nissen (total) fundoplication at least 10 years ago (September 1991 to August 1995) were determined prospectively using a structured questionnaire that evaluated clinical symptom scores for heartburn, dysphagia, and satisfaction with clinical outcomes.

RESULTS: Clinical followup data for at least 10 years (120 to 167 months) after operation were available for 226 patients, an additional 21 patients had died, making outcomes for 247 patients (99%). Of the three (1%) remaining patients, one was lost to followup and dementia developed in two. One hundred eighty-seven (83%) patients were highly satisfied with the clinical outcomes. One hundred eighty-nine (84%) had good or excellent control of heartburn. Symptom scores for heartburn, dysphagia, and overall satisfaction were unchanged from 5-year followup data. Forty-two (17%) patients underwent revision operations, 28 (22%) were in the first 125 patients and 14 (11%) in the subsequent 125 patients. Antireflux medication use increased gradually, resulting in 47 (21%) patients using medication at 10 years. Of 21 deaths, 1 was postoperative and the remaining 20 were similar to that predicted for a matched population. A high preoperative heartburn score correlated with high patient satisfaction and lower dysphagia score at 10 or more years ($p = 0.038$ and $p = 0.041$, respectively).

CONCLUSIONS: Laparoscopic Nissen fundoplication is an effective longterm treatment for gastroesophageal reflux disease. (*J Am Coll Surg* 2007;205:570–575. © 2007 by the American College of Surgeons)

Fifteen-Year Outcome of Laparoscopic and Open Nissen Fundoplication: A Randomized Clinical Trial

Paulina Salminen, MD, PhD, Saija Hurme, MS, and Jari Ovaska, MD, PhD

Departments of Surgery and Emergency, Turku University Hospital, Turku; and Department of Biostatistics, University of Turku, Turku, Finland

Conclusions. The 15-year results obtained in the present study define laparoscopic Nissen fundoplication as the procedure of choice in the surgical management of GERD. The long-term symptomatic outcomes of open and laparoscopic Nissen fundoplication appear to remain unaltered after the first 10 postoperative years.

Αίτια Αποτυχίας

Εμονή ή υποτροπή
συμπτωμάτων

- Κακή επιλογή ασθενών
- Κακή τεχνική
- Βραχύς οισοφάγος

Αίτια Αποτυχίας

Νέα συμπτώματα

- Δυσφαγία (έως 20%)

-Κινητικότητα
-Διάμετρος
θολοπλαστικής

Effect of an Esophageal Bougie on the Incidence of Dysphagia Following Nissen Fundoplication

A Prospective, Blinded, Randomized Clinical Trial

Emma J. Patterson, MD; Daniel M. Herron, MD; Paul D. Hansen, MD; Najib Ramzi, MSc;
Blayne A. Standage, MD; Lee L. Swanström, MD

Results: The mean operating time was 148 minutes (range, 65-295 minutes). The overall operative morbidity was 9% (7.4% in the bougie group and 11% in the no bougie group, $P=.41$). One esophageal injury (1.2%) occurred in the bougie group. The 30-day mortality was 0. Long-term dysphagia assessment was completed in 90% of patients, with a mean follow-up of 11 months. Overall, long-term postoperative dysphagia was present in 13 patients (17%) in the bougie group and 24 patients (31%) in the no bougie group ($P=.047$). Severe dysphagia occurred in 5% of patients in the bougie group and 14% in the no bougie group.

Αίτια Αποτυχίας

Χρήση PPIs

Αίτια Αποτυχίας

Absence of Gastroesophageal Reflux Disease in a Majority of Patients Taking Acid Suppression Medications After Nissen Fundoplication

Reginald V.N. Lord, M.B.B.S., Anna Kaminski, B.S., Stefan Öberg, M.D., Ph.D., David J. Bowrey, M.D., Jeffrey A. Hagen, M.D., Steven R. DeMeester, M.D., Lelan F. Sillin, M.D., Jeffrey H. Peters, M.D., Peter F. Crookes, M.D., Tom R. DeMeester, M.D.

tionnaire. The mean postoperative follow-up period was 28 months (median 18 months). Thirty-seven patients (43%) were taking acid suppression medications after fundoplication. Only 23% (20 of 86) of all the patients and only 24% (9 of 37) of those taking acid suppression medications had abnormal esophageal acid exposure on the 24-hour pH study. Heartburn and regurgitation were the only symptoms that were signif-

Προοπτικές

Long-term Proton Pump Inhibitor Therapy and Risk of Hip Fracture

Conclusion Long-term PPI therapy, particularly at high doses, is associated with an increased risk of hip fracture.

Table 2. Risk of Hip Fracture Associated With Increasing Cumulative Duration of Proton Pump Inhibitor Therapy

OR (95% CI)*	Cumulative Proton Pump Inhibitor Therapy Duration, y			
	1	2	3	4
Crude	1.43 (1.35-1.52)	1.84 (1.67-2.01)	2.10 (1.91-2.35)	2.17 (1.93-2.45)
Adjusted†	1.22 (1.15-1.30)	1.41 (1.28-1.56)	1.54 (1.37-1.73)	1.59 (1.39-1.80)

Προοπτικές

Risk of Community-Acquired Pneumonia and Use of Gastric Acid-Suppressive Drugs

Conclusion Current use of gastric acid-suppressive therapy was associated with an increased risk of community-acquired pneumonia.

Table 1. Relative Risks for Community-Acquired Pneumonia by Exposure to Gastric Acid-Suppressive Therapy

	Exposed to Acid-Suppressive Drugs				
	Total	Unexposed	Overall	H ₂ -Receptor Antagonists	Proton Pump Inhibitors
No. of patients	364 683	345 224	19 459*	10 177	12 337
Person-years	977 893	970 331	7562*	2351	5191
No. of cases of pneumonia	5551	5366	185	54	131
Unadjusted relative risk (95% CI)		1.00	4.47 (3.82-5.12)	4.24 (3.18-5.43)	4.63 (3.84-5.43)

Προοπτικές

- A comparison of the cost effectiveness of pharmacotherapy or surgery (laparoscopic fundoplication) in the treatment of GORD

Bojke L, Hornby E, Sculpher M; REFLUX Trial Team

Pharmacoconomics. 2007;25(10):829-41

- CONCLUSIONS: The results of the model suggest that, on the basis of current evidence, laparoscopic fundoplication represents a cost effective means of treating GORD rather than lifelong medical management.

Προοπτικές

- Αύξηση ασθενών για χειρουργική αντιμετώπιση
- 
- Ανάγκη για βελτίωση του χειρουργικού αποτελέσματος

The Extended Learning Curve for Laparoscopic Fundoplication: A Cohort Analysis Of 400 Consecutive Cases

J. Gill • M. I. Booth • J. Stratford • T. C. B. Dehn

Abstract Many studies have looked at the learning curve associated with laparoscopic Nissen fundoplication (LNF) in a given institution. This study looks at the learning curve of a single surgeon with a large cohort of patients over a 10-year period. Prospective data were collected on 400 patients undergoing laparoscopic fundoplication for over 10 years. The patients were grouped consecutively into cohorts of 50 patients. The operating time, the length of postoperative hospital stay, the conversion rate to open operation, the postoperative dilatation rate, and the reoperation rate were analyzed. Results showed that the mean length of operative time decreased from 143 min in the first 50 patients to 86 min in the last 50 patients. The mean postoperative length of hospital stay decreased from 3.7 days initially to 1.2 days latterly. There was a 14% conversion to open operation rate in the first cohort compared with a 2% rate in the last cohort. Fourteen percent of patients required reoperation in the first cohort and 6% in the last cohort. Sixteen percent required postoperative dilatation in the first cohort. None of the last 150 patients required dilatation. In conclusion, laparoscopic fundoplication is a safe and effective operation for patients with gastroesophageal reflux disease. New techniques and better instrumentation were introduced in the early era of LNF. The learning curve, however, continues well beyond the first 20 patients.

Comparison of Long-term Outcome of Laparoscopic and Conventional Nissen Fundoplication

A Prospective Randomized Study With an 11-Year Follow-up

Paulina T. P. Salminen, MD,* Heikki I. Hiekkanen, MSc,† Arto P. T. Rantala, MD, PhD,* and Jari T. Ovaska, MD, PhD*

result, were similar in both groups. With the benefit of hindsight, 73.7% of the patients in the open group and 81.8% in the LAP group would again choose surgical treatment ($P = 0.3042$). In the LAP group, there were 5 (13.2%) partially or totally disrupted plications compared with the 14 (40.0%) disrupted plications in the open group ($P = 0.0152$). There were 10 incisional hernias in the open group compared with none in the LAP group ($P < 0.001$).

ΑΧΑΛΑΣΙΑ

- 0.6 / 100.000 ετησίως στις ΗΠΑ
- Ηλικίες 3^η και 7^η δεκαετία
- Αγνώστου αιτιολογίας

ΑΧΑΛΑΣΙΑ

- Εκφυλισμός μυεντερικού πλέγματος στα μέσο και κατώτερο τριτημόρια
- Διήθηση κυρίως με Τ-Λεμφοκύτταρα
- Αρχικά απώλεια ανασταλτικών νευρώνων (VIP & NOS) στην συνέχεια και των διεγερτικών (ακετυλοχολίνη)

ΑΧΑΛΑΣΙΑ - Συμπτώματα

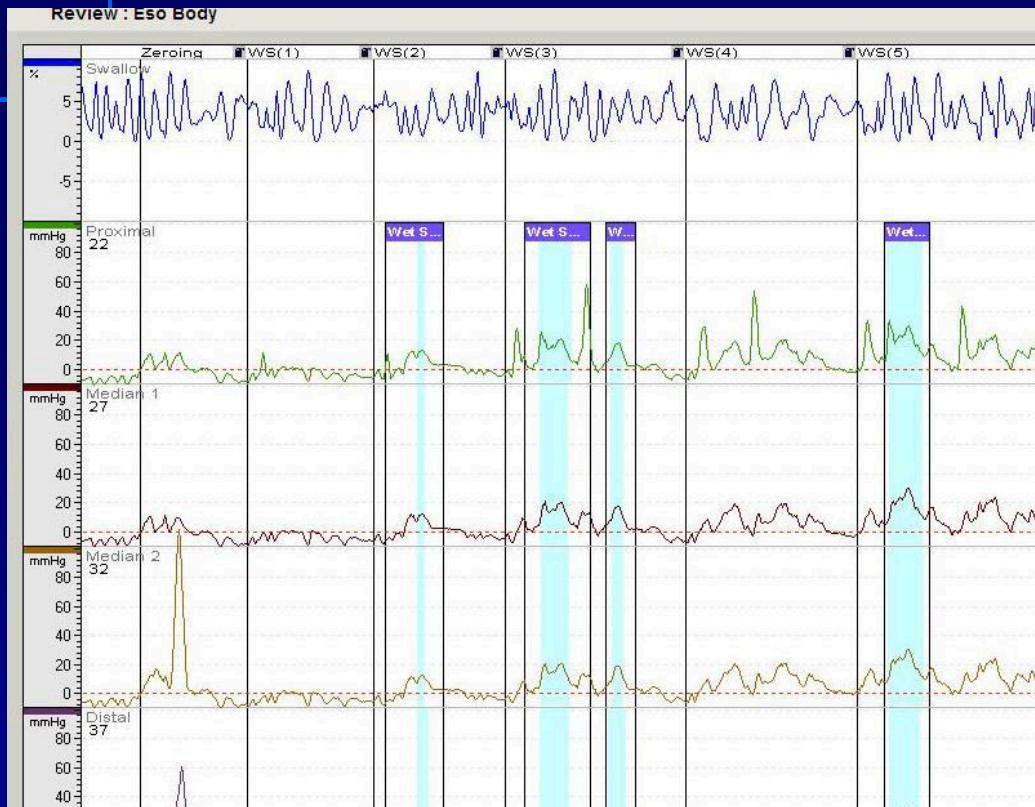
- Δυσφαγία σε υγρά και στερεά (90%)
- Μεταγευματικές αναγωγές (60%)
- Δυσκολία ερυγών
- Θωρακικός πόνος (20-60%)
- Οπισθοστερνικό καύσος ? (30%)
- Απώλεια βάρους (τελικό στάδιο)

ΑΧΑΛΑΣΙΑ - Διάγνωση



**Ενδοσκόπηση & ανάστροφη απεικόνιση θόλου
(ψευδοαχαλασία)**

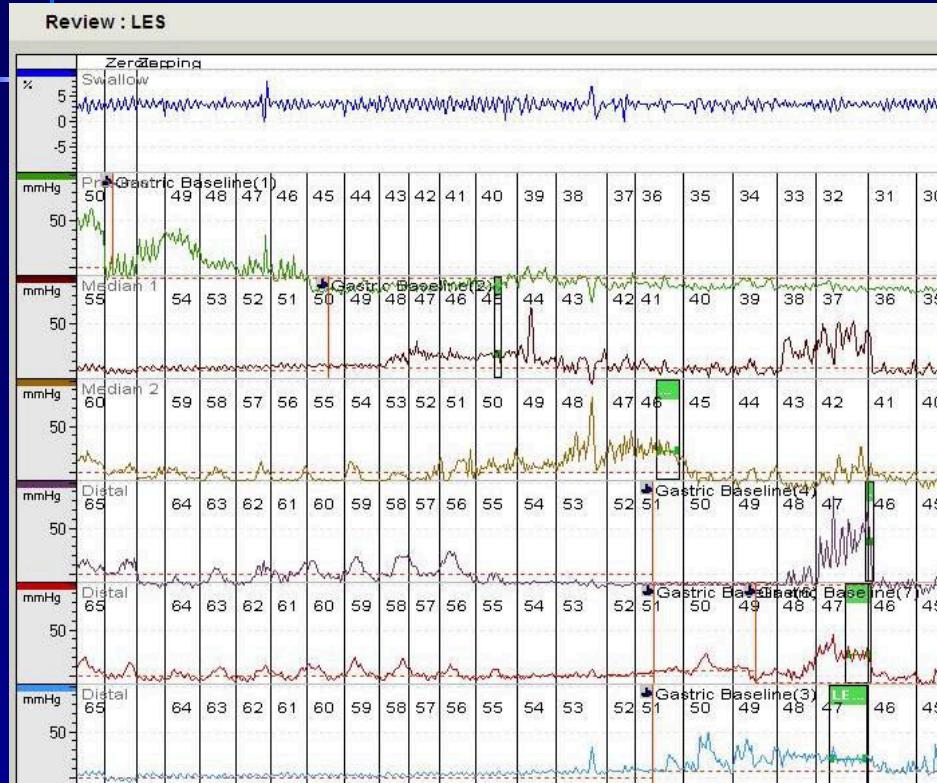
ΑΧΑΛΑΣΙΑ - Διάγνωση



- ✓ Απουσία περίσταλσης στο σώμα του οισοφάγου

Μανομετρία
(ιδιοπαθής ή δευτεροπαθής αχαλασία)

ΑΧΑΛΑΣΙΑ - Διάγνωση

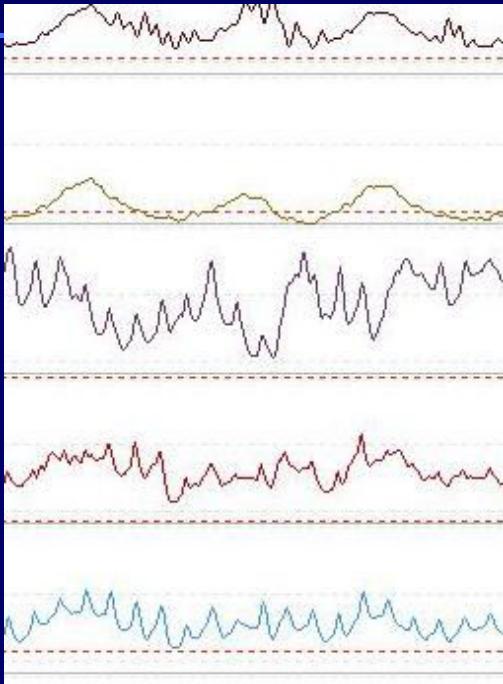


✓ Υπερτονικός ΚΟΣ

Μανομετρία

(ιδιοπαθής ή δευτεροπαθής αχαλασία)

ΑΧΑΛΑΣΙΑ - Διάγνωση



- ✓ Ανεπαρκής χάλαση
ΚΟΣ

Μανομετρία
(ιδιοπαθής ή δευτεροπαθής αχαλασία)

Treating Achalasia

From Whalebone to Laparoscope

Anita E. Spiess, MD; Peter J. Kahrilas, MD

Conclusions.—Both pneumatic dilation and surgical myotomy are effective therapies for achalasia; laparoscopic Heller myotomy is emerging as the optimal surgical therapy.

JAMA. 1998;280:638-642

- Heller μυοτομή 1913 πρόσθια και οπίσθια μυοτομή
- Τροποποίηση 1923 μόνο πρόσθια
- Λαπαροσκοπική 1991

META-ANALYSIS

Endoscopic and Surgical Treatments for Achalasia *A Systematic Review and Meta-Analysis*

Guilherme M. Campos, MD, PhD,* Eric Vittinghoff, PhD,† Charlotte Rabl, MD,* Mark Takata, MD,*
Michael Gadenstätter, MD,‡ Feng Lin, MS,† and Ruxandra Ciovica, MD*

Ann Surg 2009;249: 45–57

Αχαλασία

Results Obtained With Endoscopic Botulinum Toxin Injection in the Treatment of Achalasia

Author (Reference No.)	Year	Design	n	Botulinum Toxin (Units)	Follow-up (mo)	Decrease LES P (%)	Symptom Improvement* (% of Patients)				Received Treatment After EBTI n (%)		
							<1 mo	3 mo	6 mo	>12 mo	Repeat EBTI	Dilation	Myotomy
Pasricha ¹³	1996	PC	31	80	29	45	90	55	55	—	26 (84)	3 (10)	1 (3)
Fishman ¹⁴	1996	PC	60	100	10	—	70	—	—	36	16 (27)	2 (3)	1 (2)
Cuilliere ⁴⁸	1997	PC	55	80	6	31	75	69	53	—	19 (35)	—	—
Gordon ⁴⁹	1997	PC	16	80	7	—	75	56	44	—	4 (25)	1 (6)	1 (6)
Wehrmann ⁵⁰	1999	PC	20	100	24	—	80	—	—	10	14 (70)	1 (5)	1 (5)
Kolbasnik ⁵¹	1999	PC	30	80	21	—	—	77	57	39	14 (47)	3 (10)	1 (3)
D'Onofrio ⁵²	2002	PC	37	100	22	30	84	—	—	51	14 (38)	—	—
Neubrand ⁵³	2002	RC	25	25	30	31	64	—	—	39	14 (56)	1 (4)	1 (4)
Martinek ⁵⁴	2003	PC	41	100	26	35	93	83	—	55	10 (24)	1 (2)	4 (10)
Mean (Range)													
Total			315		18 (6–30)	34.0 (30–45)	78.7 (64–93)	70 (55–83)	53.3 (44–57)	40.6 (10–55)	131 (46.6)	12 (3.8)	10 (3.2)

Ann Surg 2009;249: 45–57

Aχαλασία

Results Obtained With Endoscopic Balloon Dilation in the Treatment of Achalasia

Author	Year	Design	n	Dilator Size (cm)	Duration of Dilation (s)	Pressure During Dilation (psi)	Follow-up (mo)	Decrease LESP (%)	Symptom Improvement* (% of Patients)				Received Treatment After Dilation		
									≤1 mo	6 mo	12 mo	>36 mo	Dilation n (%)	Myotomy n (%)	Perforation n (%)
Gelfand ⁵⁵	1989	PC	24	3.0, 3.5	30	7	6	64	—	81	—	—	2 (8)	1 (4)	0 (0)
Barkin ⁵⁶	1990	RC	50	3.0, 3.5, 4.0	68	18	15	—	90	—	90	—	0 (0)	2 (4)	4 (8)
Kadakia ⁵⁷	1993	PC	29	3.0	60	8.8	48	67	—	—	—	62	11 (38)	2 (7)	0 (0)
Wehrmann ²¹	1995	PC	40	3.0, 3.5	240	7	29	42	87	—	—	70	12 (30)	2 (5)	1 (3)
Lambroza ⁵⁸	1995	RC	27	3.0, 3.5, 4.0	90	15	21	—	—	—	63	—	3 (11)	0 (0)	0 (0)
Khan ⁵⁹	1998	PC	81	3.0	6, 60	10	6	—	—	97	—	—	2 (3)	0 (0)	0 (0)
Sabharwal ⁶⁰	2002	RC	76	2.0, 3.0, 4.0	60	—	29	—	97	—	54	—	24 (32)	3 (4)	0 (0)
Mikaeli ⁶¹	2004	PC	262	3.5, 3.0	10, 30	10	54	—	—	—	—	60	77 (29)	17 (6)	3 (1)
Guardino ⁵⁷	2004	RC	96	3.0	45	9.5	7	—	—	51	—	—	33 (34)	—	2 (2)
Dobnitski ⁶²	2004	PC	43	3.0	60	15	28	75	56	61	38	—	18 (42)	3 (7)	1 (2)
Chan ⁶³	2004	RC	66	3.0, 3.5, 4.0	120	9	55	—	—	79	—	—	13 (20)	2 (3)	3 (5)
Ghoshal ⁶⁴	2004	RC	126	3.0	90	11	15	39	—	—	71	—	37 (29)	6 (5)	1 (1)
Boztas ⁶⁵	2005	RC	50	3.0, 3.5, 4.0	60	—	32	55	83	—	67	—	10 (20)	5 (10)	0 (0)
Katsinelos ¹⁰	2005	RC	39	3.0, 3.5, 4.0	93	—	111	72	—	—	—	33	28 (72)	6 (15)	2 (5)
Rai ¹⁵	2005	PC	56	3.5	120	10	6	—	96	—	89	—	4 (7)	0 (0)	0 (0)
Mean (Range)															
Total			1065		73 (6–240)	10.9 (7–18)	30.8 (6–111)	59.1 (39–75)	84.8 (56–97)	73.8 (51–97)	68.2 (38–90)	58.4 (33–70)	274 (25)	49 (5)	17 (1.6)

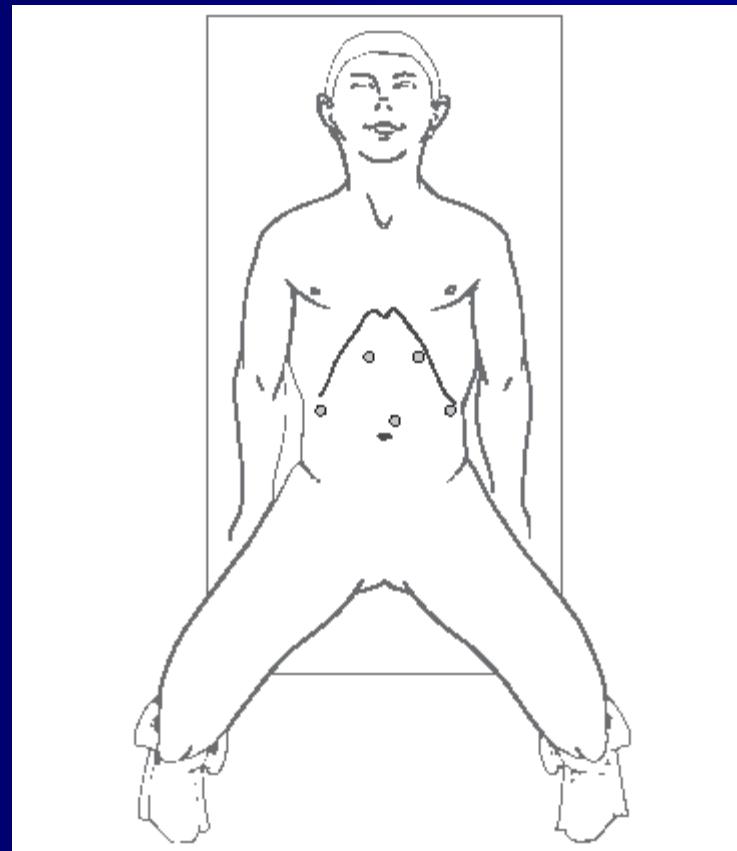
Results Obtained With Laparoscopic Myotomy in the Treatment of Achalasia

Author	Year	Design	N All	Follow-up (mo)	Symptom Improvement			Evidence of GER		
					N With ARP	N Without ARP	All N (%)	With ARP (%)	Without ARP (%)	All n/N* (%)
Mitchell ¹⁰⁹	1995	PC	14	12	14	0	14 (100)	14 (100)	—	1/14 (7)
Delgado ¹¹⁰	1996	RC	12	—	12	0	10 (83)	10 (83)	—	—
Raiser ¹¹¹	1996	RC	35	26	35	0	28 (80)	28 (80)	—	0/18 (0) [†]
Collard ¹¹²	1996	RC	12	14.4	12	0	10 (83)	10 (83)	—	0/6 (0) [†]
Anselmino ¹¹³	1997	PC	43	12	43	—	39 (91)	39 (91)	—	2/35 (6) [†]
Hunter ⁴⁵	1997	RC	40	12	39	1	36 (90)	35 (90)	—	2/40 (5)
Vogt ¹¹⁴	1997	PC	20	12	18	2	18 (90)	—	—	3/20 (15)
Morino ³²	1997	PC	21	29	21	0	21 (100)	21 (100)	—	1/17 (6) [†]
Kumar ¹¹⁵	1998	PC	19	27	0	19	17 (89)	—	17 (89)	5/15 (33)
Richards ¹¹⁶	1999	PC	16	8.3	0	16	14 (88)	—	14 (88)	3/14 (21) [†]
Stewart ¹⁰³	1999	RC	63	17	55	8	56 (89)	—	—	5/46 (11)
Patti ¹⁰²	1999	RC	133	23	133	—	124 (93)	124 (93)	—	6/36 (17) [†]
Bloomston ¹⁰⁴	2000	RC	67	18	8	59	61 (91)	—	—	13/68 (19)
Yamamura ¹¹⁷	2000	RC	24	16.5	24	0	20 (95)	20 (95)	—	1/9 (11) [†]
Zaninotto ¹¹⁸	2000	PC	94	24	94	0	86 (91)	86 (91)	—	10/75 (13) [†]
Bonavina ¹¹⁹	2000	RC	92	28	92	—	80 (87)	80 (87)	—	2/26 (8) [†]
Cade ¹⁰⁵	2000	RC	19	24	—	19	18 (95)	—	18 (95)	7/19 (37)
Ackroyd ¹²⁰	2001	PC	82	24	82	—	82 (100)	82 (100)	—	1/68 (1)
Wills ¹²¹	2001	PC	62	38	62	—	49 (79)	49 (79)	—	2/62 (3)
Pechlivanides ¹²²	2001	PC	29	12	29	—	26 (90)	26 (90)	—	2/20 (10) [†]
Donahue ¹²³	2002	RC	81	45	81	—	69 (85)	69 (85)	—	—
Oelschlager ¹²⁴	2003	PC	110	46	110	—	91 (83)	91 (83)	—	19/43 (44) [†]
Douard ⁸⁶	2004	PC	52	50	52	—	48 (92)	48 (92)	—	6/52 (11) [†]
Arain ¹²⁵	2004	RC	78	16	78	—	62 (97)	62 (97)	—	1/6 (17) [†]
Perrone ¹²⁶	2004	PC	100	26	100	—	97 (97)	97 (97)	—	1/92 (1)
Frantzides ¹²⁷	2004	RC	53	36	52	1	49 (92)	48 (92)	—	5/53 (9)
Dempsey ¹²⁸	2004	RC	51	32.5	29	22	44 (86)	25 (86)	19 (86)	—
Avtan ¹²⁹	2005	RC	15	42	—	15	13 (87)	—	13 (87)	1/9 (11) [†]
Ramacciato ¹³⁰	2005	PC	32	12	17	15	31 (97)	16 (94)	15 (100)	4/32 (13)
Rossetti ¹³¹	2005	PC	195	83	195	—	179 (92)	179 (92)	—	0/15 (0) [†]
Bonatti ¹³²	2005	RC	75	64	75	—	37 (84)	37 (84)	—	7/44 (15)
Rosemurgy ¹³³	2005	PC	262	32	79	183	236 (90)	—	—	—
Portale ³⁴	2005	RC	248	41	248	—	218 (88)	218 (88)	—	9/130 (7) [†]
Deb ¹³⁴	2005	RC	211	64	198	13	148 (89)	—	—	56/167 (34)
Khajanchee ¹³⁵	2005	PC	121	9	121	—	113 (93)	113 (93)	—	16/48 (33) [†]
Burpee ¹³⁶	2005	PC	66	28	10	56	54 (87)	—	54 (87)	18/30 (60) [†]
Smith ³⁶	2006	PC	209	21	206	3	173 (83)	—	—	4/209 (2)
Katada ¹³⁷	2006	RC	30	12	30	—	24 (80)	24 (80)	—	3/25 (12) [†]
Torquati ¹³⁸	2006	PC	200	42	53	147	170 (85)	—	—	12/43 (28) ^{†‡}
Mean (Range)										
Total			3086	35.4 (8–83)	2507	579	89.3 (77–100)	90.3 (77–100)	89.9 (86–100)	14.9 (0–60)
										8.8 (0–44)
										31.5 (11–60)

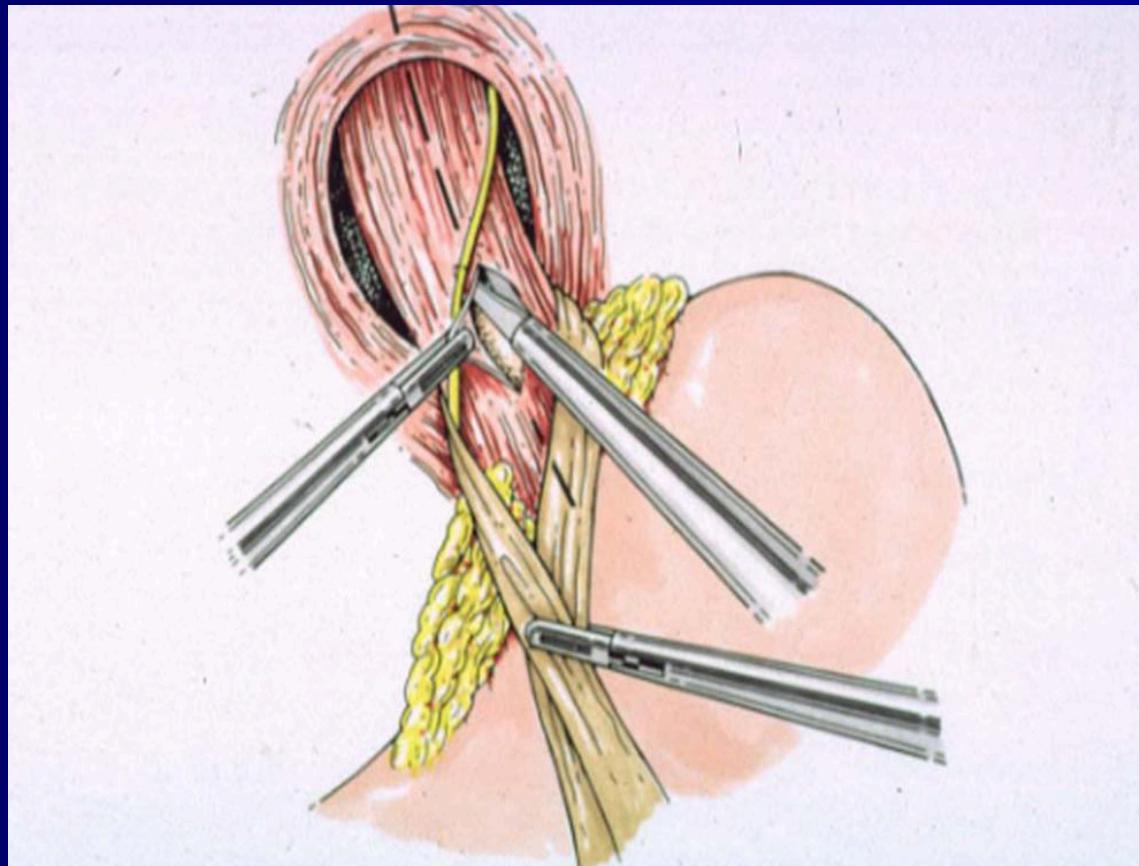
Mean (Range)

89.3 (77–100)

Τεχνική



Αχαλασία



Δεξιό Σκέλος

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Δ. Θεοδώρου

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στεφάνια: Σ.Γ. Παναγιωτίουλης



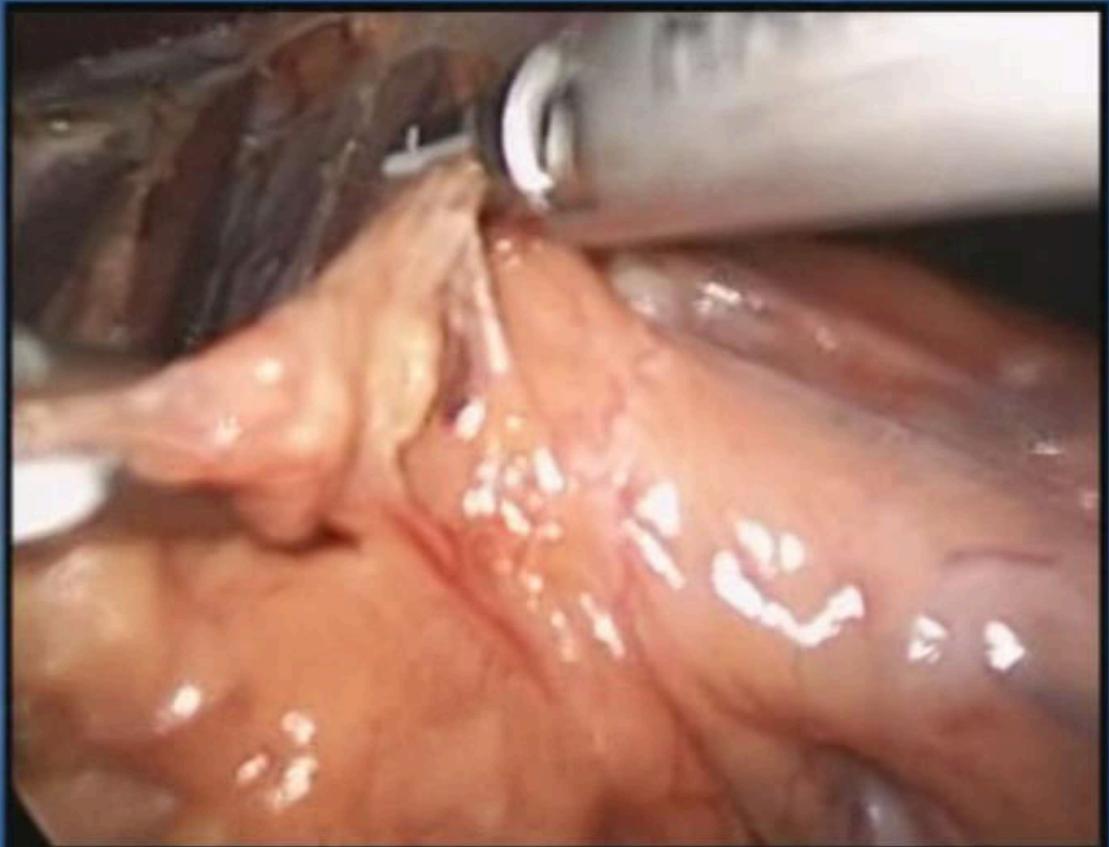
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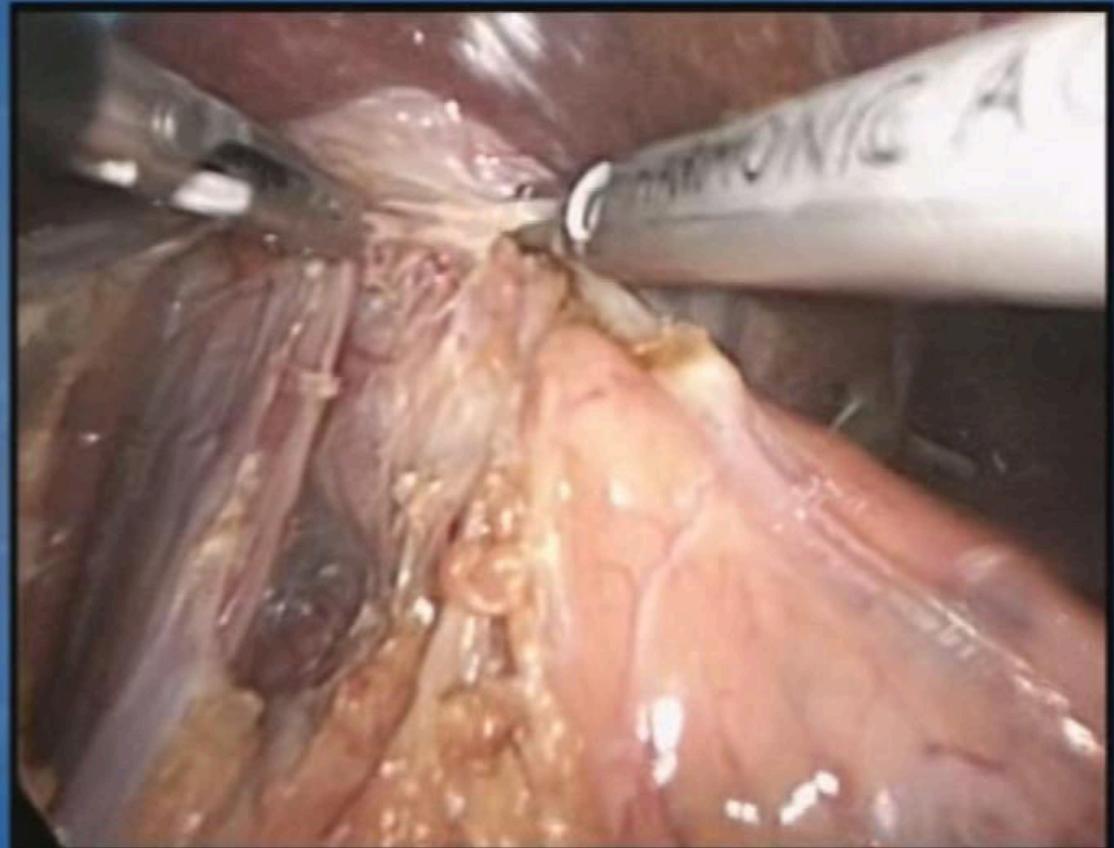
Πρόσθια Κινητοποίηση

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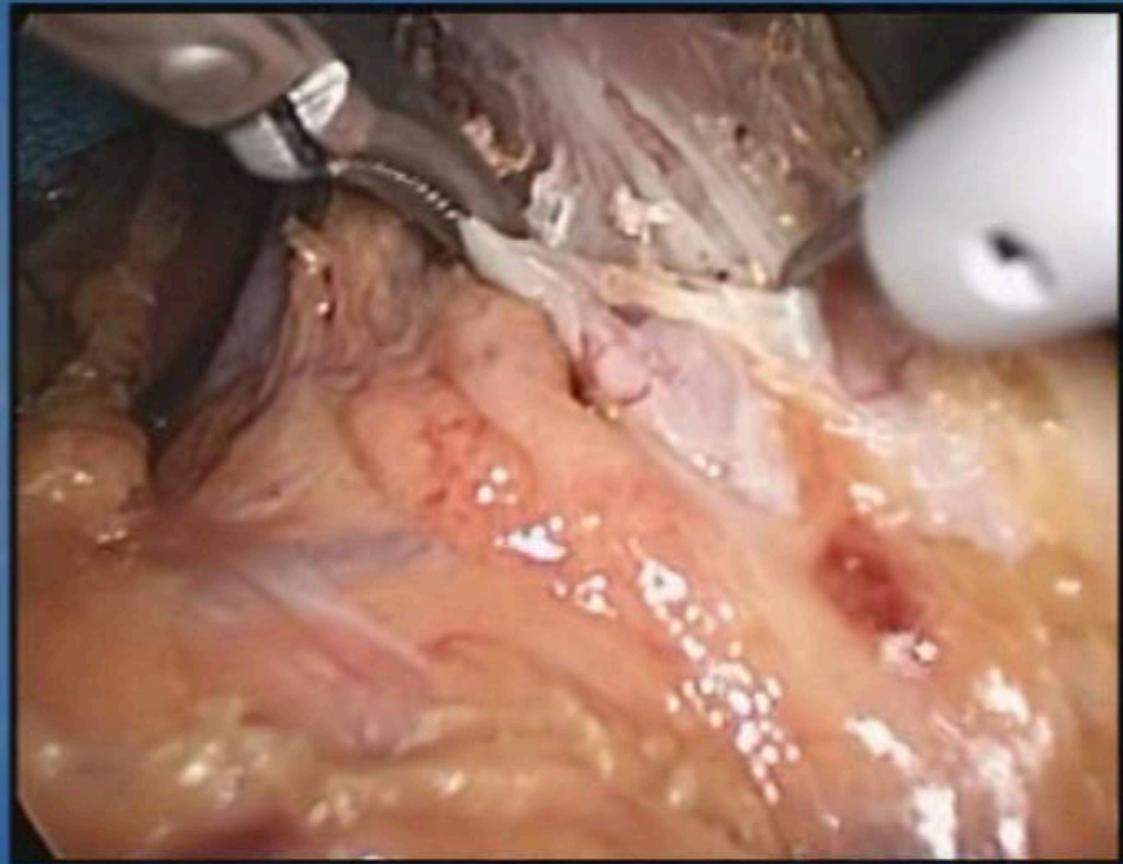
Μυοτομή

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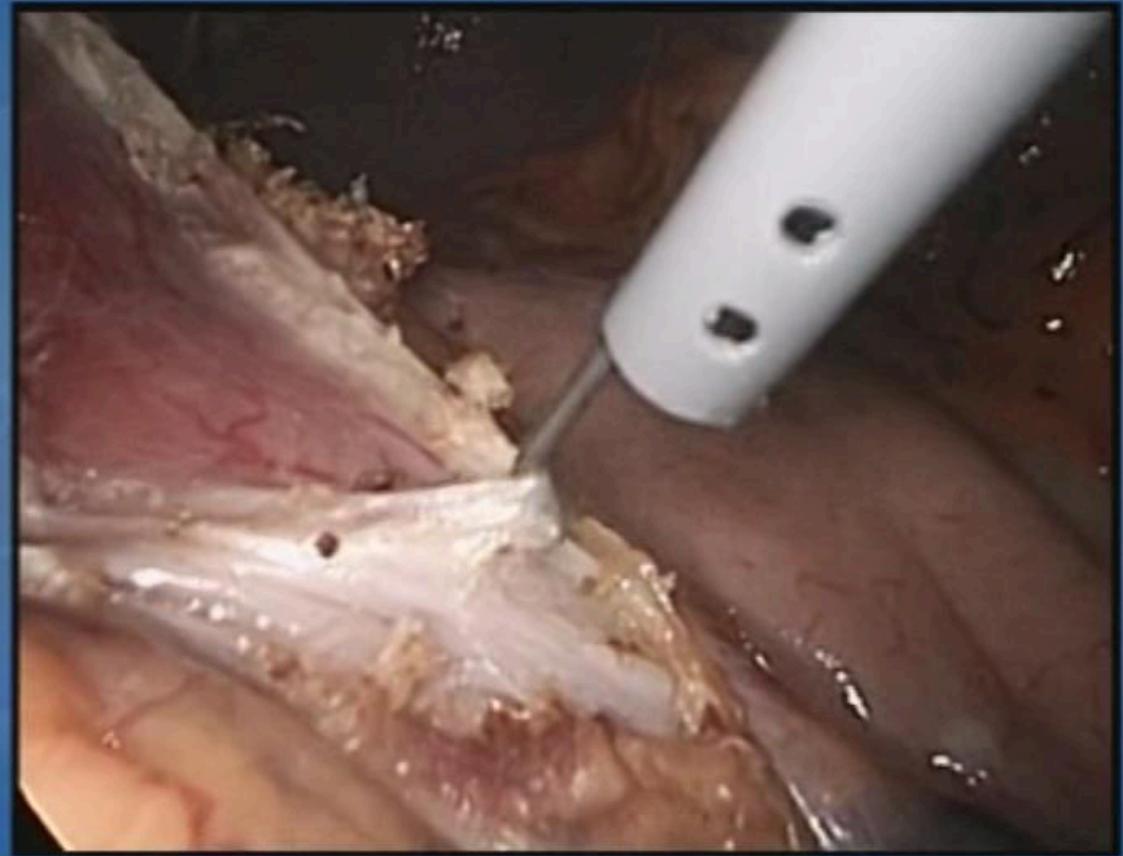
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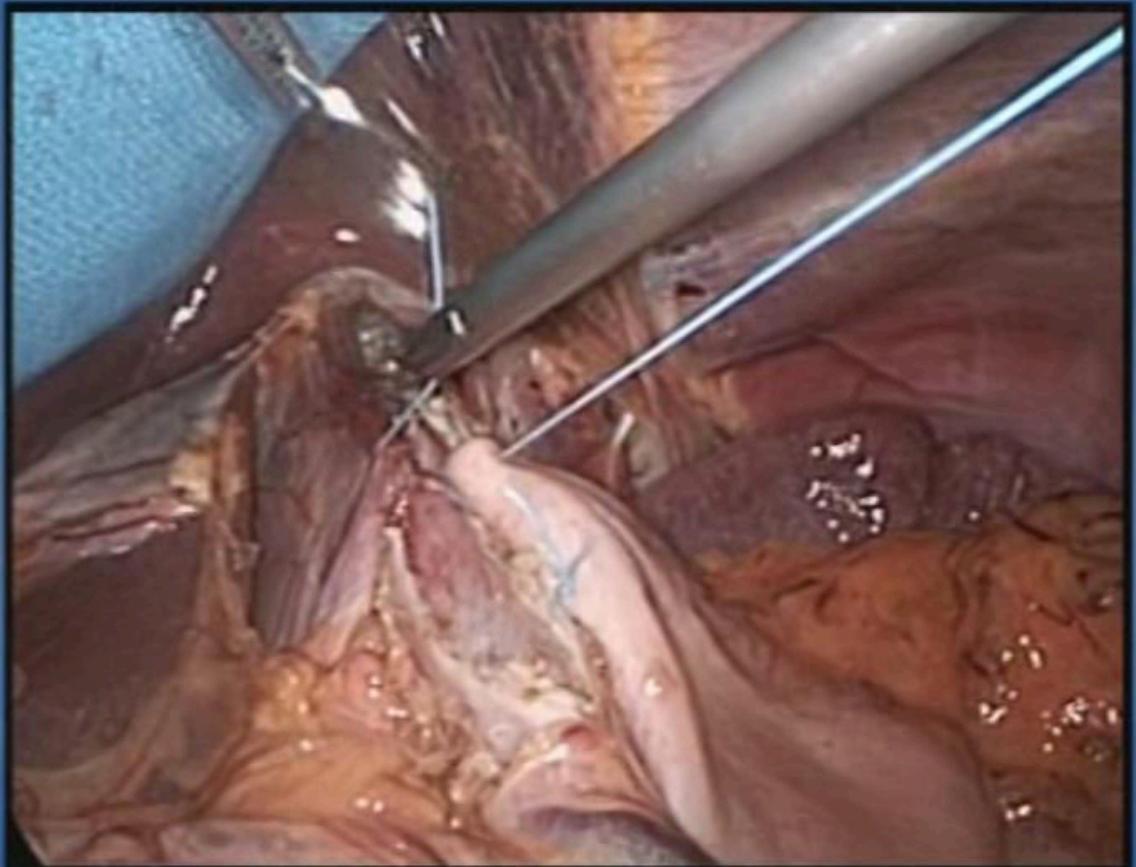
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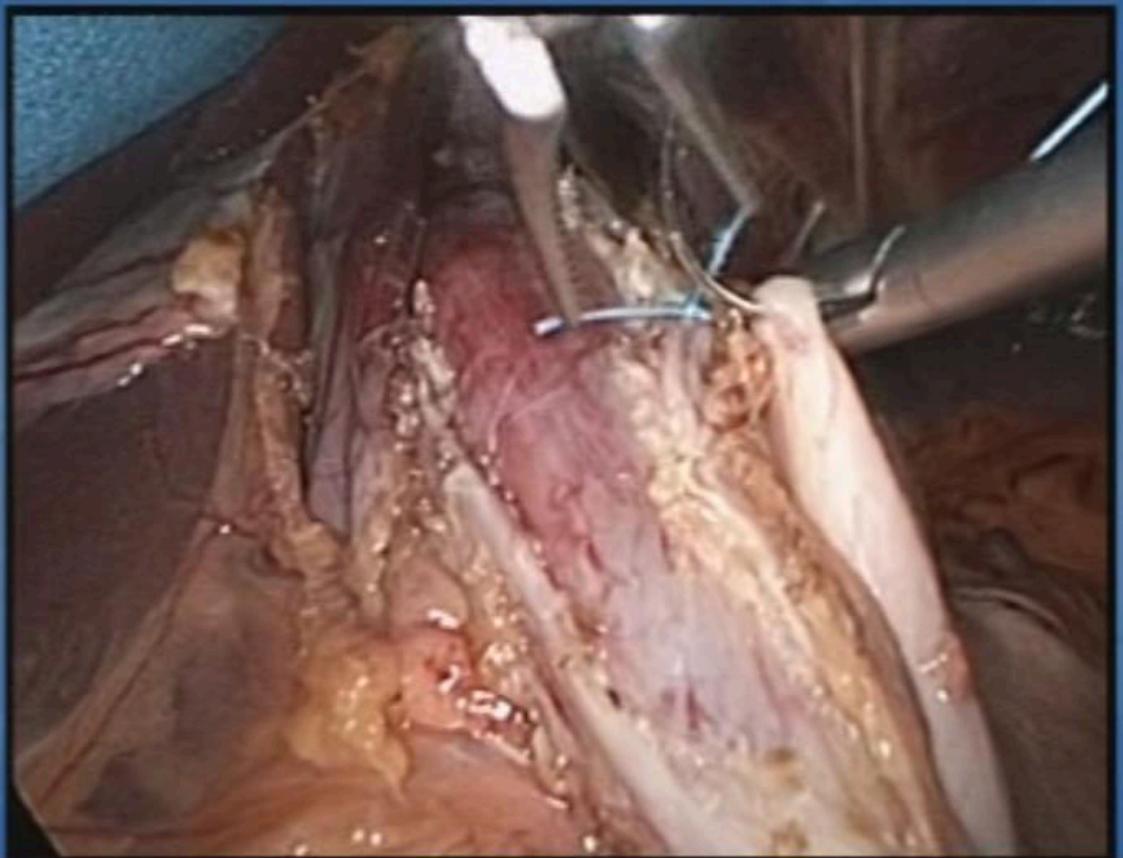
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ΘΟΛΟΠΛΑΣΤΙΚΗ ΚΑΤΑ DOR

επιμέλεια: Σ.Γ. Πανουσαπούλος



Eivai απαραίτητη η

Results Obtained With Laparoscopic Myotomy in the Treatment of Achalasia

Author	Year	Design	N All	Follow-up (mo)	N With ARP	N Without ARP	Symptom Improvement			Evidence of GER		
							All N (%)	With ARP (%)	Without ARP (%)	All n/N* (%)	With ARP n/N* (%)	Without ARP (%)
Mitchell ¹⁰⁹	1995	PC	14	12	14	0	14 (100)	14 (100)	—	1/14 (7)	1/14 (7)	—
Delgado ¹¹⁰	1996	RC	12	—	12	0	10 (83)	10 (83)	—	—	—	—
Raiser ¹¹¹	1996	RC	35	26	35	0	28 (80)	28 (80)	—	0/18 (0)†	0/18 (0)	—
Collard ¹¹²	1996	RC	12	14.4	12	0	10 (83)	10 (83)	—	0/6 (0)†	0/6 (0)	—
Anselmino ¹¹³	1997	PC	43	12	43	—	39 (91)	39 (91)	—	2/35 (6)†	2/35 (6)	—
Hunter ⁴⁵	1997	RC	40	12	39	1	36 (90)	35 (90)	—	2/40 (5)	2/39 (5)	—
Vogt ¹¹⁴	1997	PC	20	12	18	2	18 (90)	—	—	3/20 (15)	2/18 (11)	1/2 (50)
Morino ³²	1997	PC	21	29	21	0	21 (100)	21 (100)	—	1/17 (6)†	1/17 (6)	—
Kumar ¹¹⁵	1998	PC	19	27	0	19	17 (89)	—	17 (89)	5/15 (33)	—	5/15 (33)
Richards ¹¹⁶	1999	PC	16	8.3	0	16	14 (88)	—	14 (88)	3/14 (21)†	—	3/14 (21)
Stewart ¹⁰³	1999	RC	63	17	55	8	56 (89)	—	—	5/46 (11)	—	—
Patti ¹⁰²	1999	RC	133	23	133	—	124 (93)	124 (93)	—	6/36 (17)†	6/35 (17)	—
Bloomston ¹⁰⁴	2000	RC	67	18	8	59	61 (91)	—	—	13/68 (19)	—	13/68 (19)
Yamamura ¹¹⁷	2000	RC	24	16.5	24	0	20 (95)	20 (95)	—	1/9 (11)†	1/9 (11)	—
Zaninotto ¹¹⁸	2000	PC	94	24	94	0	86 (91)	86 (91)	—	10/75 (13)†	10/75 (13)	—
Bonavina ¹¹⁹	2000	RC	92	28	92	—	80 (87)	80 (87)	—	2/26 (8)†	2/26 (8)	—
Cade ¹⁰⁵	2000	RC	19	24	—	19	18 (95)	—	18 (95)	7/19 (37)	—	7/19 (37)
Ackroyd ¹²⁰	2001	PC	82	24	82	—	82 (100)	82 (100)	—	1/68 (1)	1/68 (1)	—
Wills ¹²¹	2001	PC	62	38	62	—	49 (79)	49 (79)	—	2/62 (3)	2/62 (3)	—
Pechlivaniades ¹²²	2001	PC	29	12	29	—	26 (90)	26 (90)	—	2/20 (10)†	2/20 (10)	—
Donahue ¹²³	2002	RC	81	45	81	—	69 (85)	69 (85)	—	—	—	—
OelschLAGER ¹²⁴	2003	PC	110	46	110	—	91 (83)	91 (83)	—	19/43 (44)†	19/43 (44)	—
Douard ⁸⁶	2004	PC	52	50	52	—	48 (92)	48 (92)	—	6/52 (11)†	6/52 (11)	—
Arain ¹²⁵	2004	RC	78	16	78	—	62 (97)	62 (97)	—	1/6 (17)†	1/6 (17)	—
Perrone ¹²⁶	2004	PC	100	26	100	—	97 (97)	97 (97)	—	1/92 (1)	1/92 (1)	—
Frantzides ¹²⁷	2004	RC	53	36	52	1	49 (92)	48 (92)	—	5/53 (9)	5/53 (9)	—
Dempsey ¹²⁸	2004	RC	51	32.5	29	22	44 (86)	25 (86)	19 (86)	—	—	—
Avtan ¹²⁹	2005	RC	15	42	—	15	13 (87)	—	13 (87)	1/9 (11)†	—	1/9 (11)
Ramacciato ¹³⁰	2005	PC	32	12	17	15	31 (97)	16 (94)	15 (100)	4/32 (13)	1/17 (6)	3/15 (20)
Rossetti ¹³¹	2005	PC	195	83	195	—	179 (92)	179 (92)	—	0/15 (0)†	0/15 (0)	—
Bonatti ¹³²	2005	RC	75	64	75	—	37 (84)	37 (84)	—	7/44 (15)	7/44 (15)	—
Rosemurgy ¹³³	2005	PC	262	32	79	183	236 (90)	—	—	—	—	—
Portale ³⁴	2005	RC	248	41	248	—	218 (88)	218 (88)	—	9/130 (7)†	9/130 (7)	—
Deb ¹³⁴	2005	RC	211	64	198	13	148 (89)	—	—	56/167 (34)	—	—
Khajanchee ¹³⁵	2005	PC	121	9	121	—	113 (93)	113 (93)	—	16/48 (33)†	16/48 (33)	—
Burpee ¹³⁶	2005	PC	66	28	10	56	54 (87)	—	54 (87)	18/30 (60)†	—	18/30 (60)
Smith ³⁶	2006	PC	209	21	206	3	173 (83)	—	—	4/209 (2)	4/206 (2)	—
Katada ¹³⁷	2006	RC	30	12	30	—	24 (80)	24 (80)	—	3/25 (12)†	3/25 (12)	—
Torquati ¹³⁸	2006	PC	200	42	53	147	170 (85)	—	—	12/43 (28)†‡	2/22 (9)	10/21 (48)
Mean (Range)												
Total			3086	35.4 (8–83)	2507	579	89.3 (77–100)	90.3 (77–100)	89.9 (86–100)	14.9 (0–60)	8.8 (0–44)	31.5 (11–60)

Ποια θολοπλαστική

Table 1. Frequency of Dysphagia After Modified Heller Myotomy and Partial (Dor, Toupet) or Complete (Nissen) Fundoplication

First Author, Year	Patients, No.	Type of wrap (No. of patients)	Dysphagia, %
Wright [9], 2007	52	Dor	2
	63	Toupet	2
Frantzides [5], 2004	53	Floppy Nissen (48)	4
Lyass [10], 2003	532 (15 studies)	Dor (429), Toupet (103)	3.2
Luketich [11], 2001	62	Toupet (45), Dor (8), Belsey (3)	38
Patti [12], 2001	102	Dor	11

Επιπλοκές

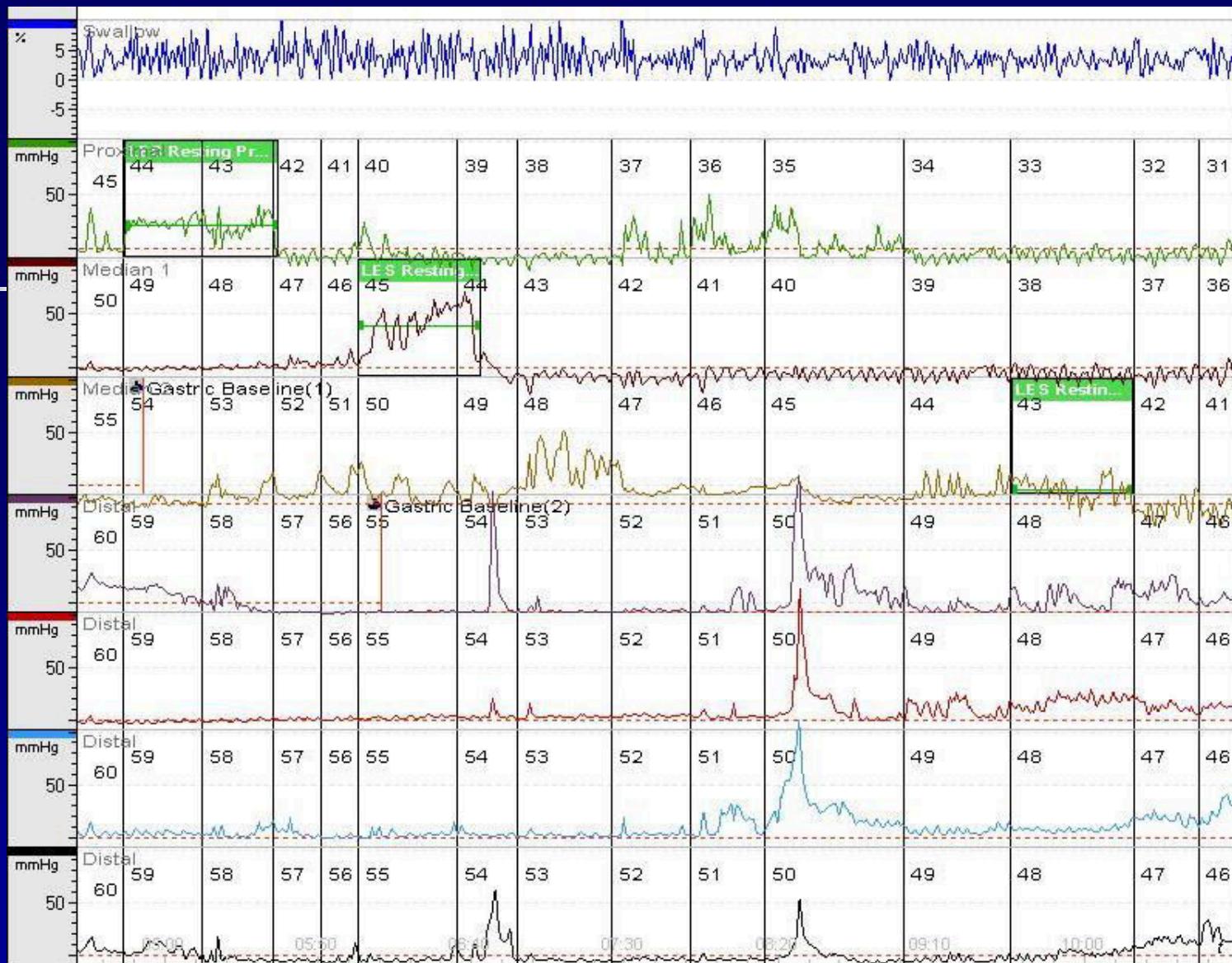
TABLE 4. Complications

	No Preoperative Endoscopic Therapy (n = 55) [no. (%)]	Preoperative Endoscopic Therapy (n = 154) [no. (%)]	P
Operative complications			
Gastric perforation	2 (3.6)	8 (5.2)	
Esophageal perforation	0	4 (2.6)	
Pneumothorax*	0	3 (1.9)	
Total	2 (3.6)	15 (9.7)	<0.05
Early postoperative complications			
Nausea and retching	1 (1.8)	0	
Upper GI bleed	1 (1.8)	1 (0.6)	
Bilateral pleural effusion	0	3 (1.9)	
Inability to swallow (severe edema)	1 (1.8)	5 (3.2)	
Aspiration pneumonia	0	2 (1.3)	
Pneumonia with empyema	0	2 (1.3)	
Severe persistent shoulder pain	0	3 (1.9)	
Total	3 (5.4)	16 (10.4)	<0.05

*Hemodynamically significant.

Υποτροπή

- Ατελής μυοτομή
- Ίνωση καρδιοοισοφαγικής γωνίας
- Σφικτή θολοπλαστική
- Αριστερός λοβός ήπατος



Μονάδα Μελέτης Οισοφαγικής Φυσιολογίας
 Μονάδα Χειρουργικής Ανώτερου Πεπτικού
 Ά Προπ Χειρ Κλιν ΕΚΠΑ