

ΔΙΛΗΜΜΑΤΑ ΣΤΗΝ ΟΓΚΟΛΟΓΙΚΗ ΧΕΙΡΟΥΡΓΙΚΗ ΟΙΣΟΦΑΓΟΥ ΣΤΟΜΑΧΟΥ

Δημήτριος Α Θεοδώρου

Χειρουργός

Α Προπαιδευτική Χειρουργική Κλινική
Πανεπιστημίου Αθηνών

Ιπποκράτειο ΓΝΑ

PRINCIPLES OF SURGICAL THERAPY IN ONCOLOGY

Important milestones in surgical oncology.

1600–1700 B.C.	Egyptians use cautery to destroy breast cancer.
400 B.C.	Hippocrates describes the clinical symptoms of cancer and coins the terms “carcinoma” and “sarcoma.”
1st and 2nd century A.D.	Roman physicians use surgery to treat breast cancer.
5th century A.D.	The Greek physician Lenoidas first describes a mastectomy as a treatment of breast cancer.
1760s	John Hunter, the “Father of Scientific Surgery,” describes principles of surgical oncology including cancer as local disease and lymphatic spread.
1775	Percival Pott describes scrotal cancer in chimney sweeps, first identifying a specific etiology of cancer.
1809	The first modern elective surgery for an abdominal cancer is performed: the removal of a 22-lb ovarian tumor by Ephraim MacDowell.
1829	Joseph Recamier first describes the principles of tumor metastasis.
1846	The first major cancer operation is performed under general anesthesia: the excision of the submaxillary gland and part of the tongue by John Collins Warren.
1867	Lister describes the principles of antisepsis and introduces carbolic acid, greatly reducing the morbidity of surgery.
1873	First total laryngectomy for laryngeal cancer by Theodore Billroth.
1881	First partial gastrectomy for cancer by Theodore Billroth.
1885	First colectomy for colon cancer by Robert Weir.
1887	New York Cancer Hospital becomes the first hospital in the United States specifically for cancer treatment.
1891	First hemipelvectomy by Theodore Billroth; first radical mastectomy for breast cancer by William Halsted.
1896	Roentgen discovers X-rays, ultimately leading to radiation oncology; G.T. Beason performs the first oophorectomy as hormonal treatment for breast cancer.
1906	First abdominoperineal resection for rectal cancer by W. Ernest Miles.
1909	Theodore Kocher first describes thyroid surgery.
1913	Both the American Association for the Advancement of Cancer (which would become the American Cancer Society) and the American College of Surgeons are established.
1919	James Ewing publishes <i>Neoplastic Diseases</i> , promoting the concept of the multidisciplinary treatment of cancer.
1927	First resection of pulmonary metastases by George Divis.
1935	First pancreaticoduodenectomy for pancreatic cancer by Allen O. Whipple.
1940	The James Ewing Society is established to “further our knowledge of cancer.”
1940s	Chemotherapy begins with the discovery of nitrogen mustards and folic acid antagonists.
1957	The initiation of the National Surgical Adjuvant Breast Project (NSABP).
1960s	Dr. Walter Lawrence establishes a division of surgical oncology at the Medical College of Virginia.
1975	The Society of Surgical Oncology (SSO) is established.
1978	The term <i>surgical oncologist</i> is defined by the SSO and NCI, and the SSO formulates guidelines for postresidency surgical oncology training.
1998	The American Board of Surgery establishes the Advisory Council for Surgical Oncology. The American College of Surgeons Oncology Group (ACOSOG) is established.

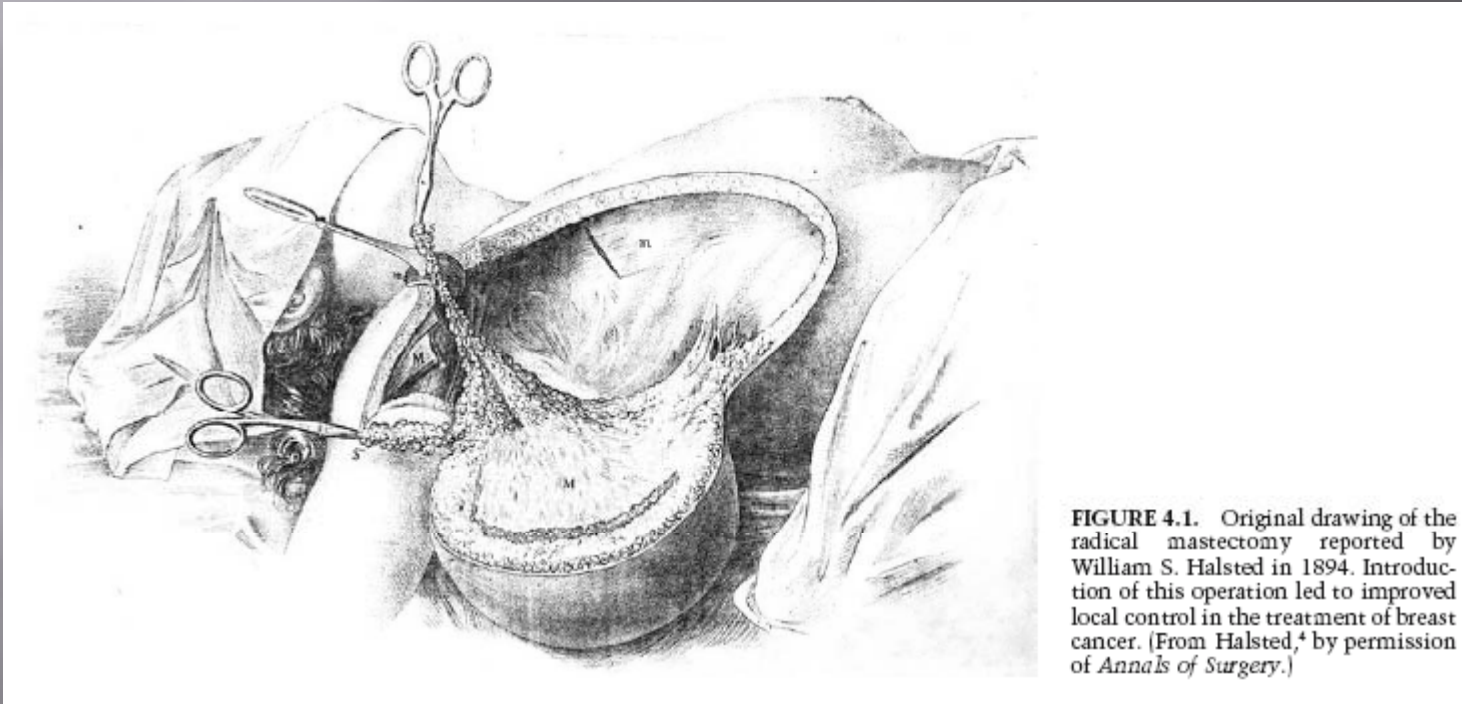


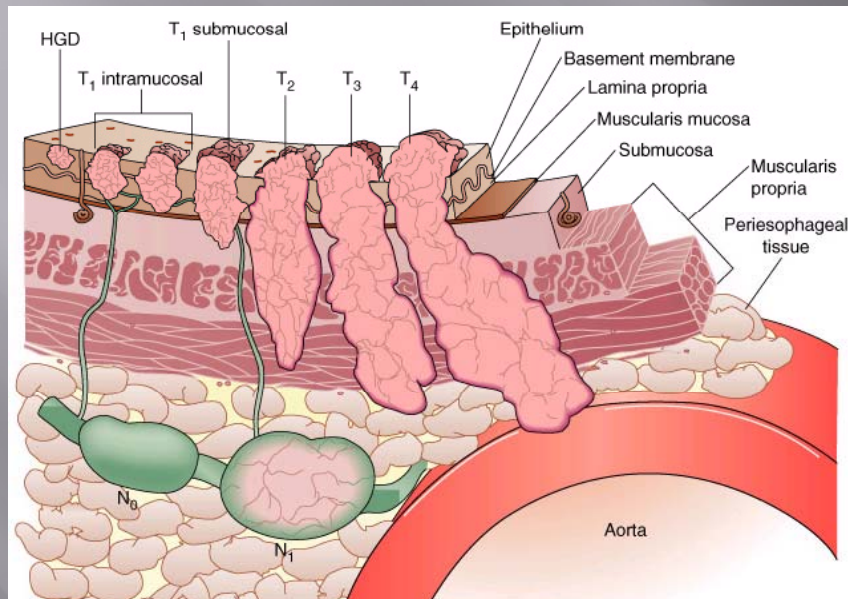
FIGURE 4.1. Original drawing of the radical mastectomy reported by William S. Halsted in 1894. Introduction of this operation led to improved local control in the treatment of breast cancer. (From Halsted,⁴ by permission of *Annals of Surgery*.)



Ριζικότητα εκτομών

- ▣ Επαρκής εκτομή όγκου
- ▣ Λεμφαδενικός καθαρισμός
- ▣ Χειρισμός τοπικά προχωρημένης νόσου (T4)
- ▣ Χειρισμός μεταστάσεων (M)

Οισοφάγος



- ▣ 7 cm όριο στην εκτομή
- ▣ Διακοιλιακή μερική εκτομή αδύνατη

Ποιες είναι οι υπάρχουσες ΤΕΧΝΙΚΕΣ;

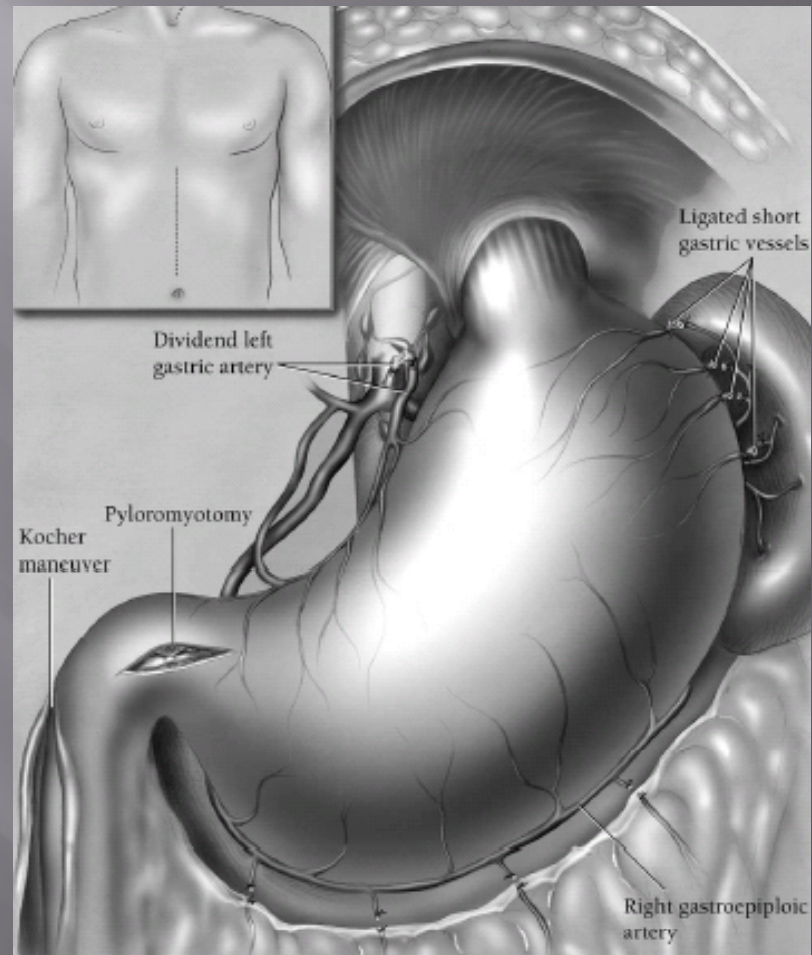
- ▣ ΔιαΔιαφραγματική Οισοφαγεκτομή ΔΔΟ
- ▣ ΔιαΘωρακική Οισοφαγεκτομή ΔΘΟ
- ▣ Οισοφαγεκτομή κατά Ivor Lewis
- ▣ Ελάχιστα Επεμβατική Οισοφαγεκτομή

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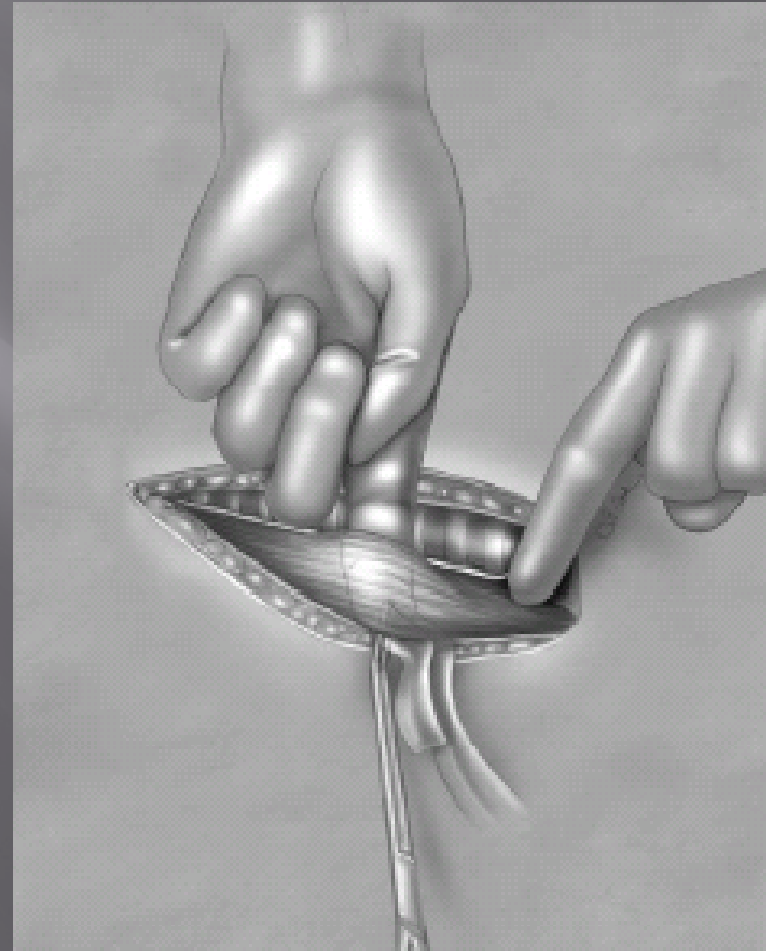
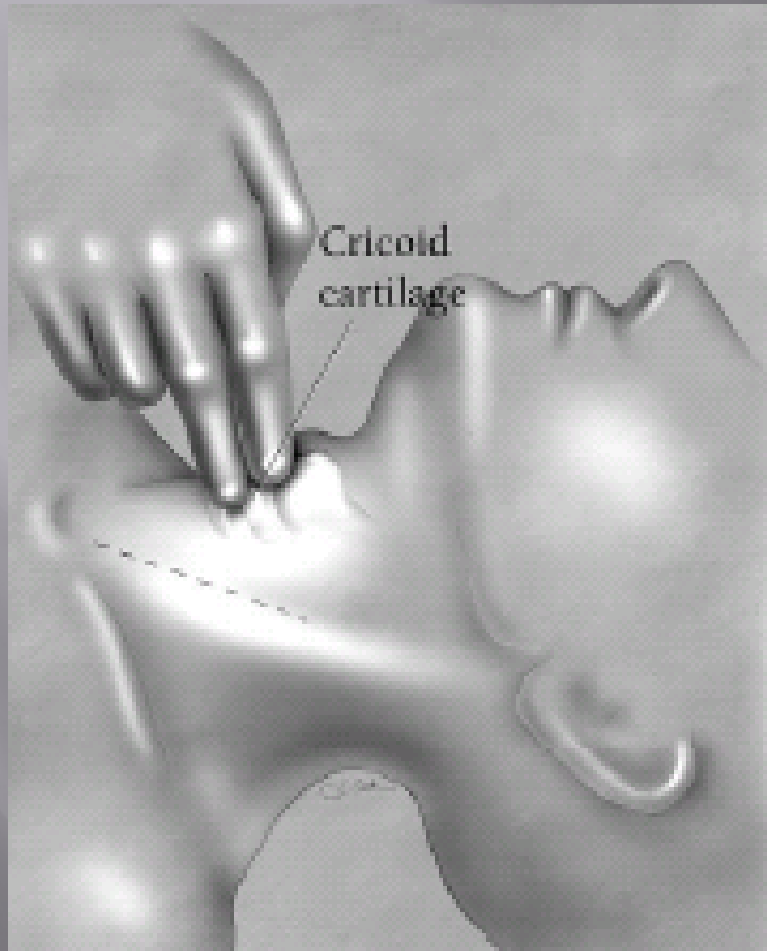
- ▣ Περιγράφεται σε πτώματα το 1913 από τον Denk
- ▣ Πρώτη εφαρμογή το 1933 από τον Turner
- ▣ Ευρεία διάδοση από τον Orringer

Orringer MB, Sloan H. Esophagectomy without thoracotomy. J Thorac Cardiovasc Surg 1978;76:643-54.

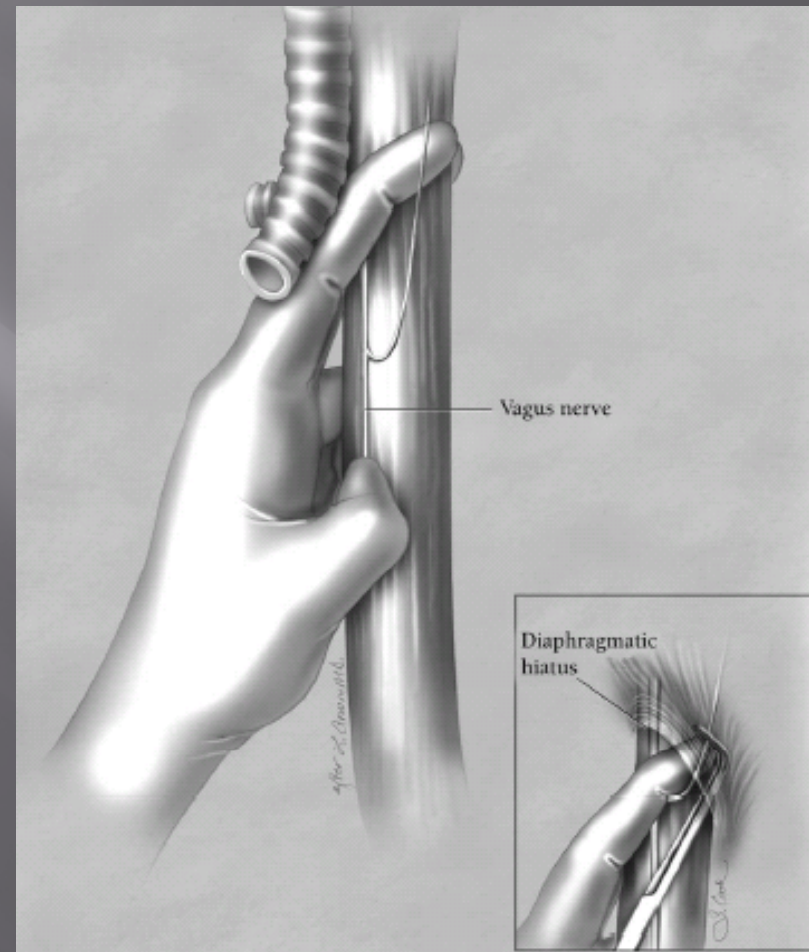
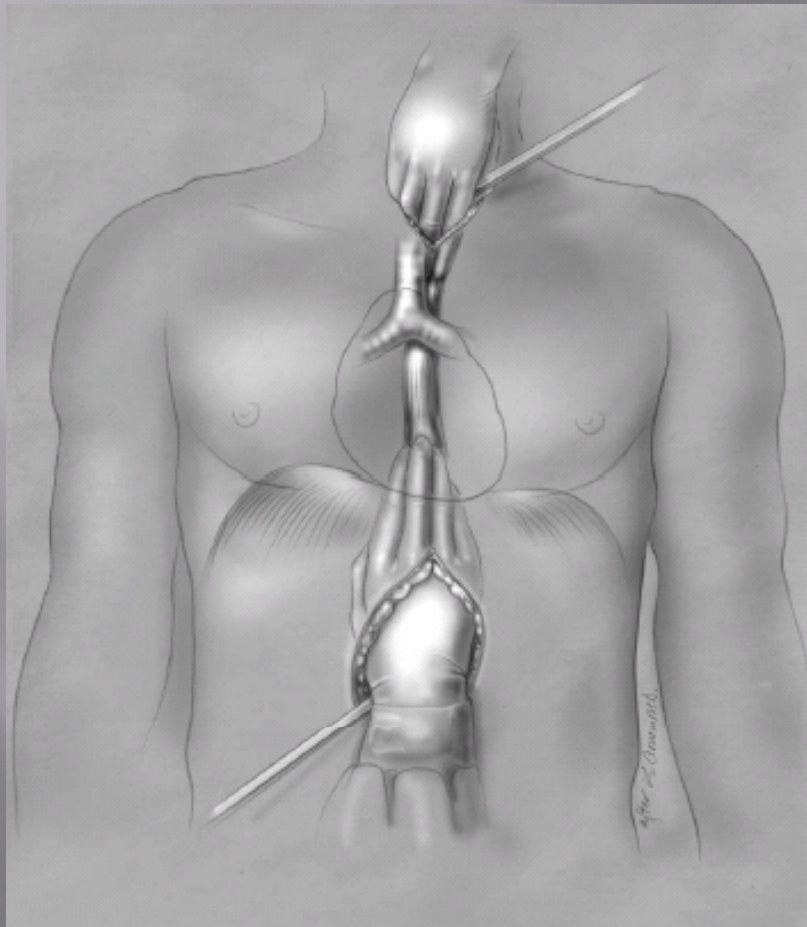
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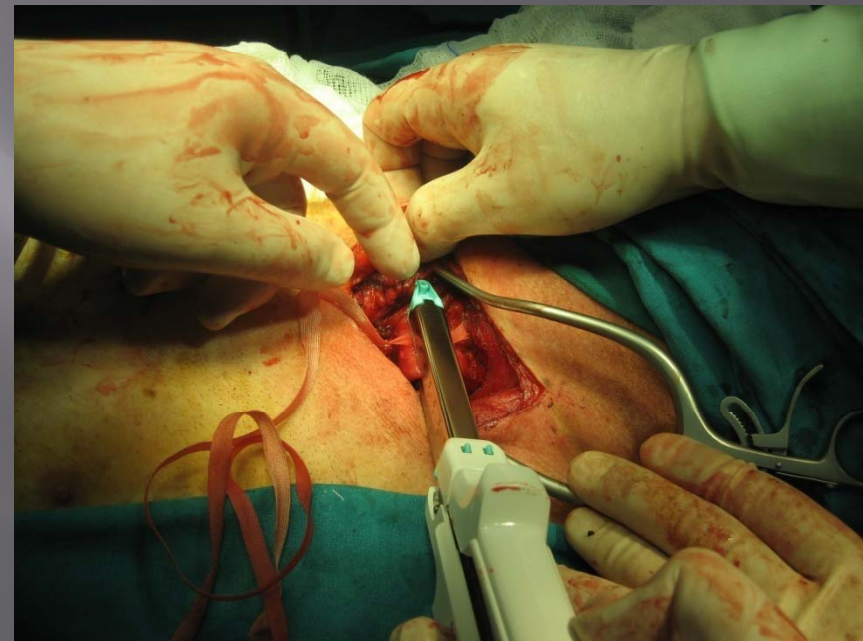
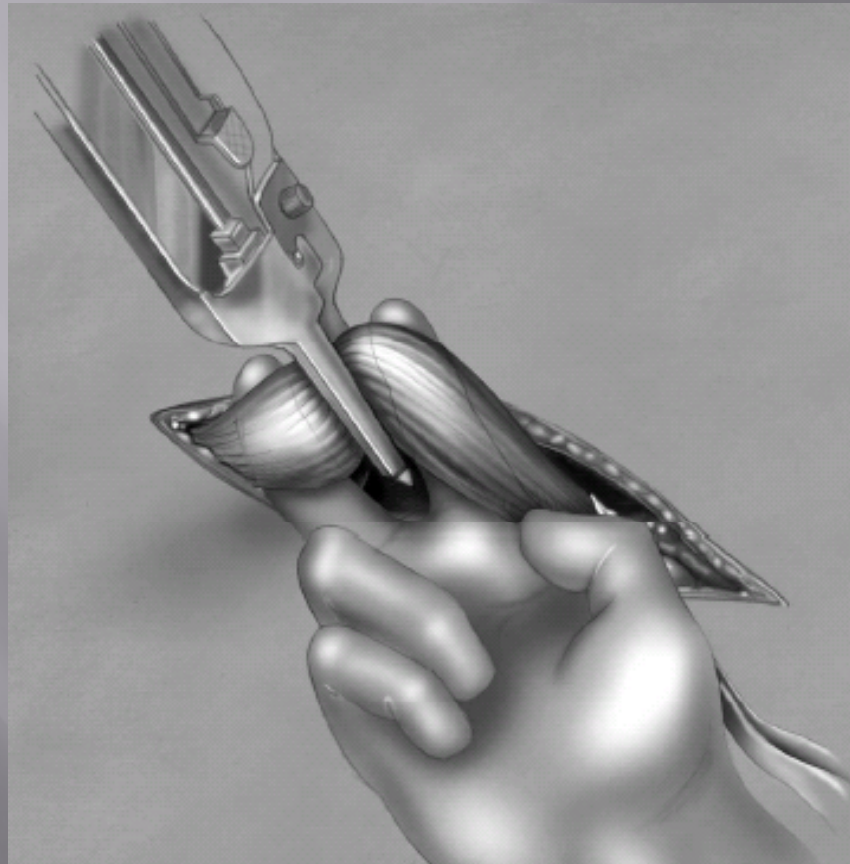
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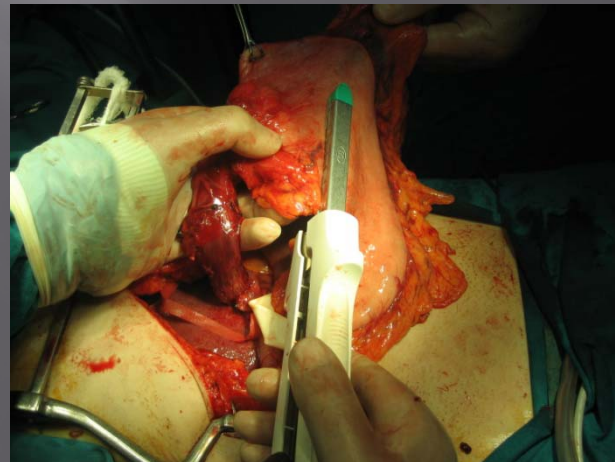
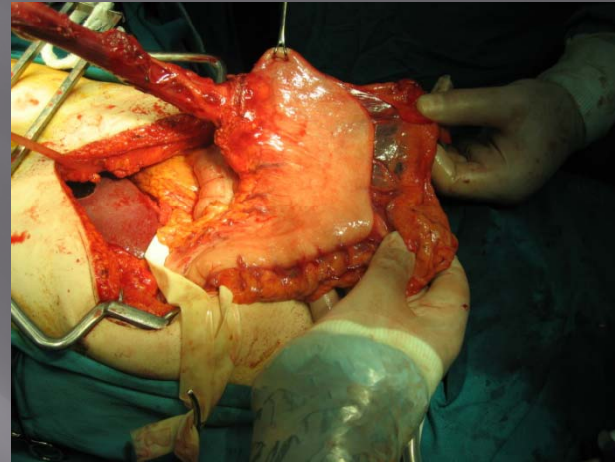
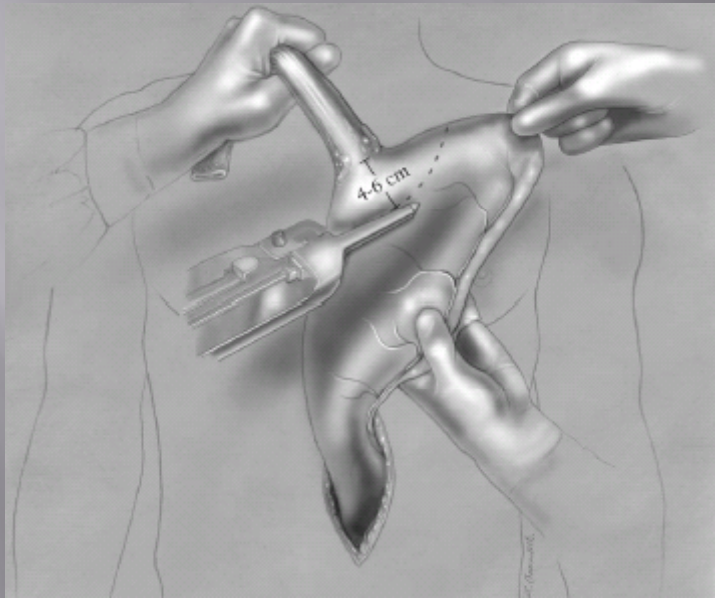
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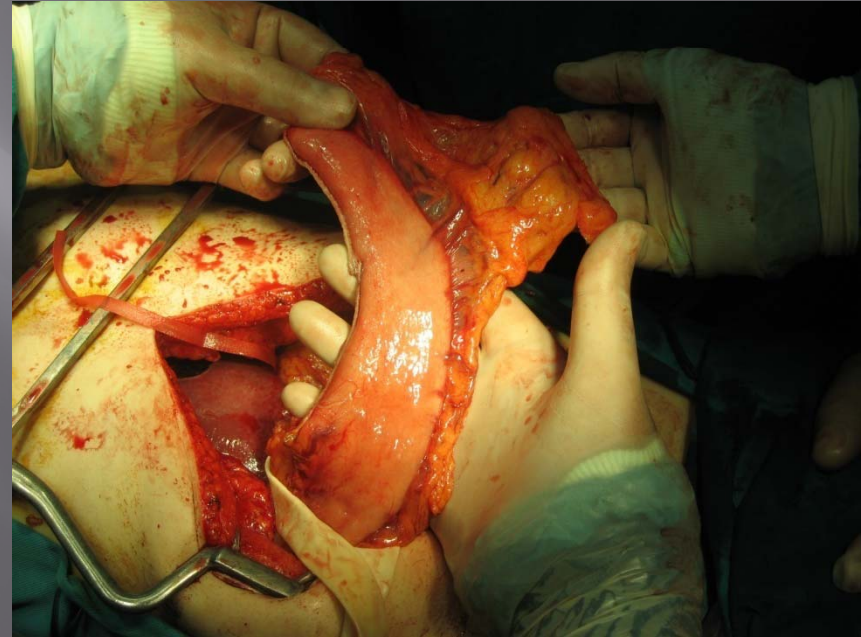
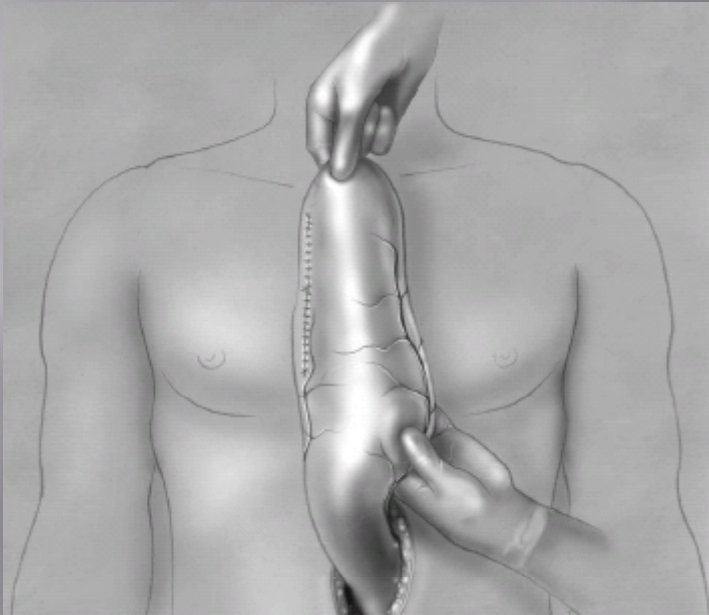
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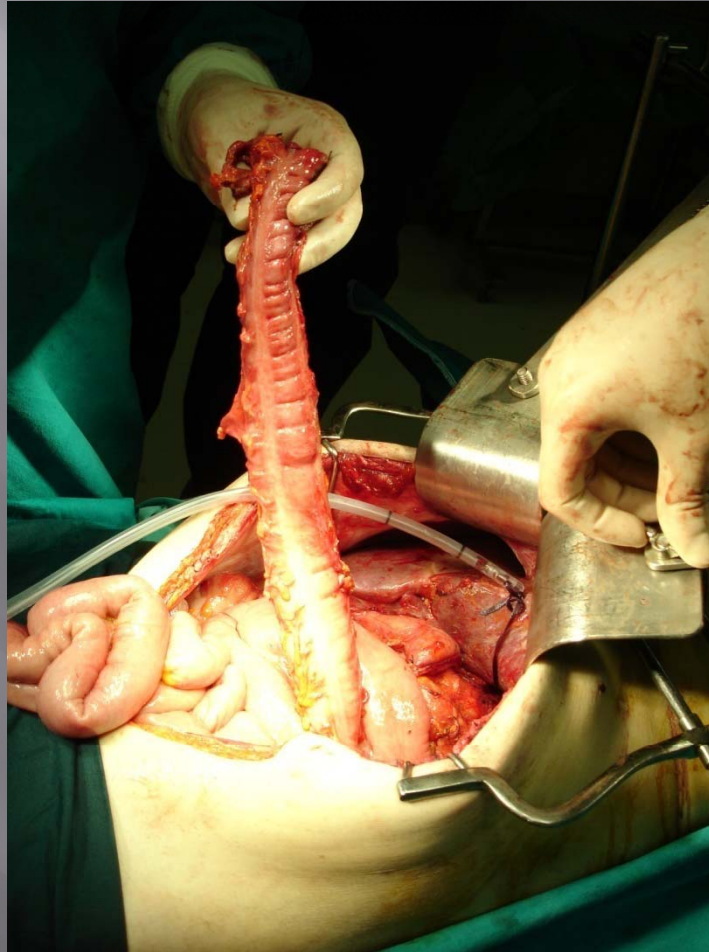
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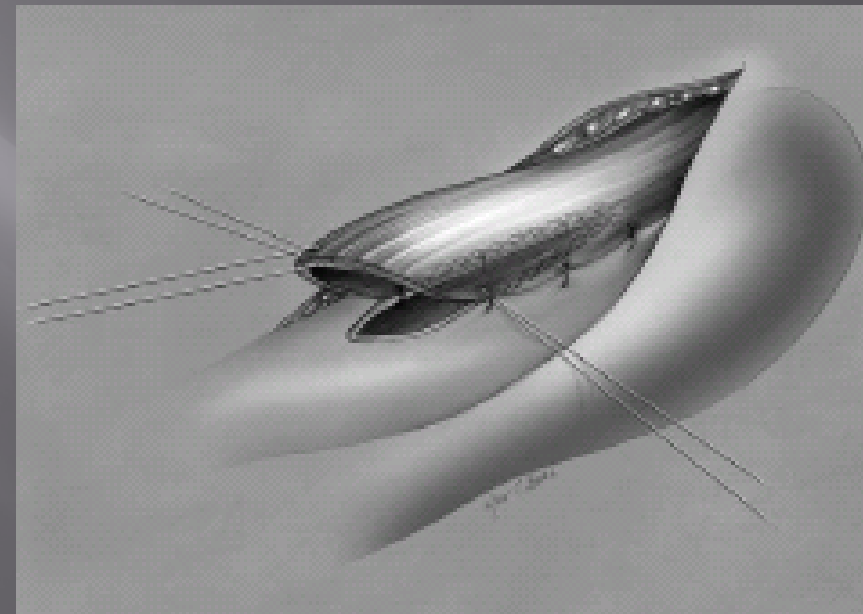
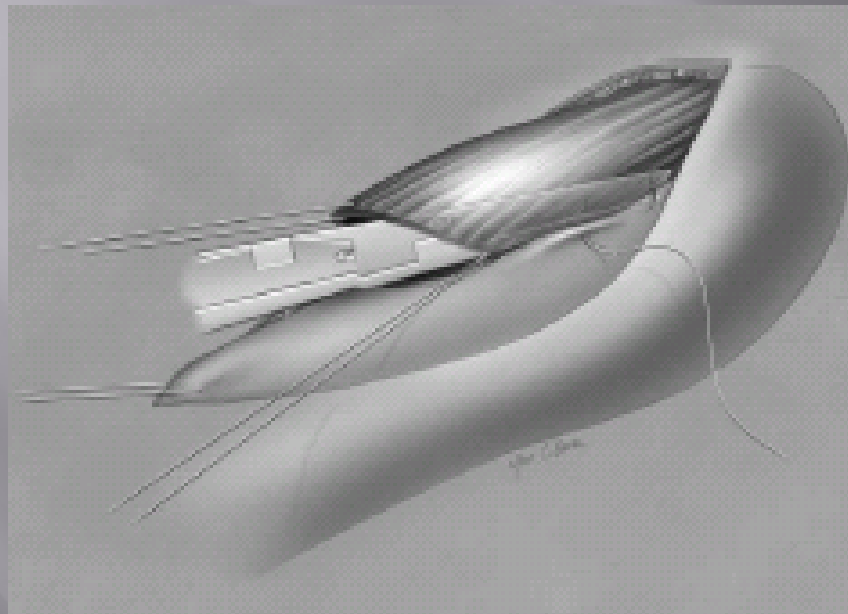
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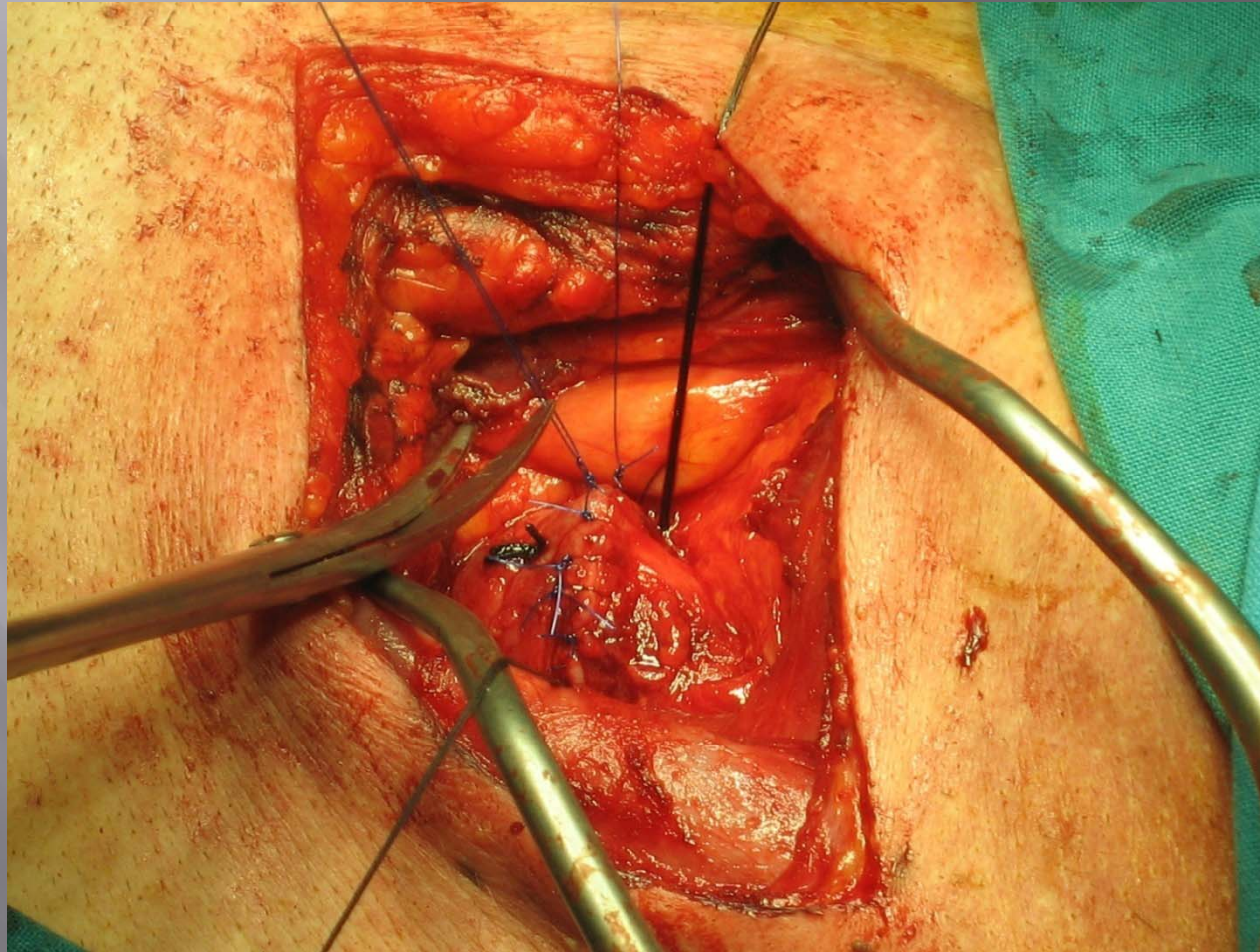
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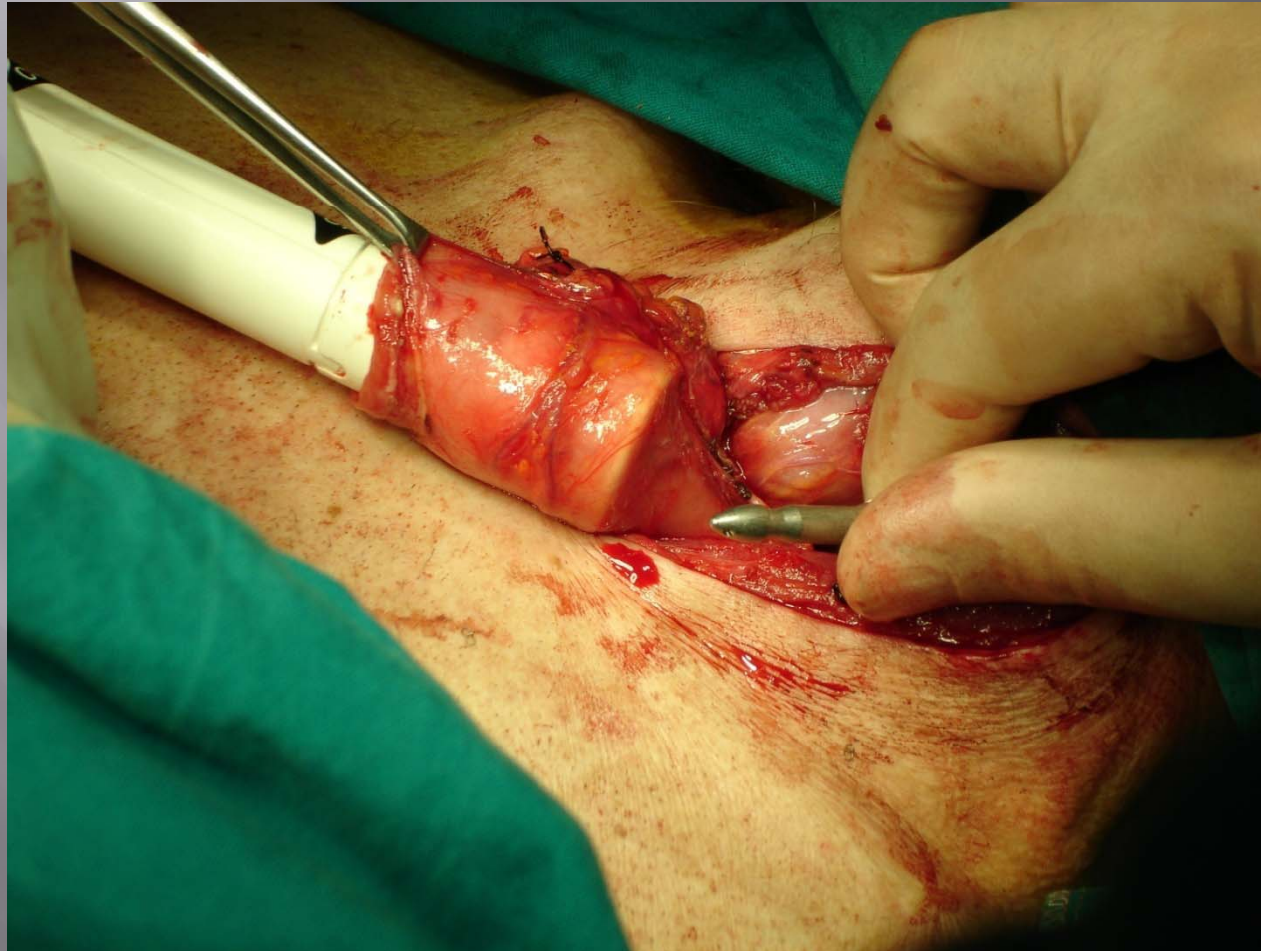
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ΔιαΔιαφραγματική Οισοφαγεκτομή ΔΔΟ

Transhiatal Esophagectomy: Clinical Experience and Refinements

Mark B. Orringer, MD, Becky Marshall, and Mark D. Jannettoni, MD

ANNALS OF SURGERY
Vol. 230, No. 3, 392-403
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ΔιαΔιαφραγματική Οισοφαγεκτομή ΔΔΟ

Table 5. KAPLAN-MEIER SURVIVAL
AFTER TRANSHIATAL ESOPHAGECTOMY
BY TUMOR STAGE

TNM Stage	No. of Patients	Survival (%)	
		2 Years	5 Years
0	72	83	51
I	94	84	59
IIA	189	50	22
IIB	79	51	29
III	296	32	10
IVA	28	17	7
IVB	39	6	0

ΟΛΙΚΗ 23%

ΔιαΔιαφραγματική Οισοφαγεκτομή ΔΔΟ

Πάρεση Λαρυγγικού	7 --> 1%
Ατελεκτασία/Πνευμονία	2%
Διαφυγή	13%
Διαστολές	12%
Παλινδρόμηση	17%
Χρήση θωρακοσωλήνα	75%
Θνητότητα	2,5%

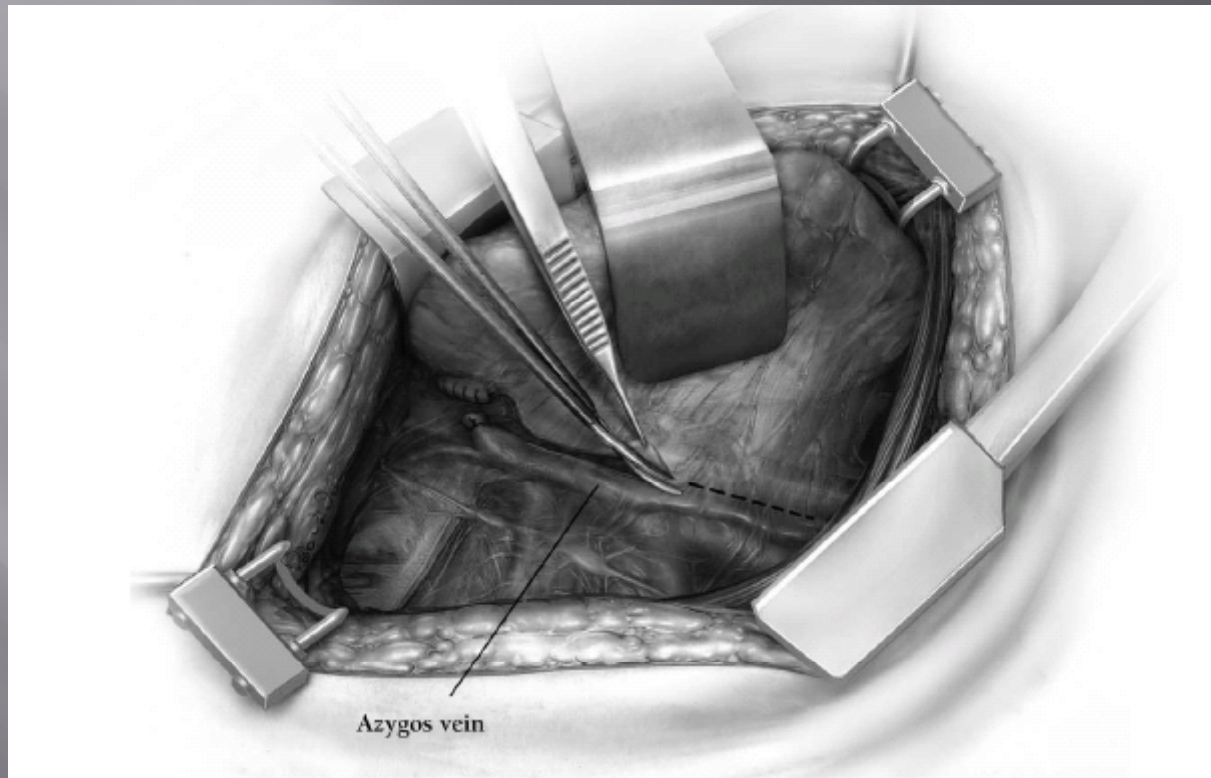
Διαθωρακική Οισοφαγεκτομή ΔΘΟ

- ▣ Αναφερόμενη και ως enblock
- ▣ Περιγραφή από τον Logan το 1968
- ▣ Επαναφορά από τον Skinner το 1983
- ▣ Συνέχιση από DeMeester

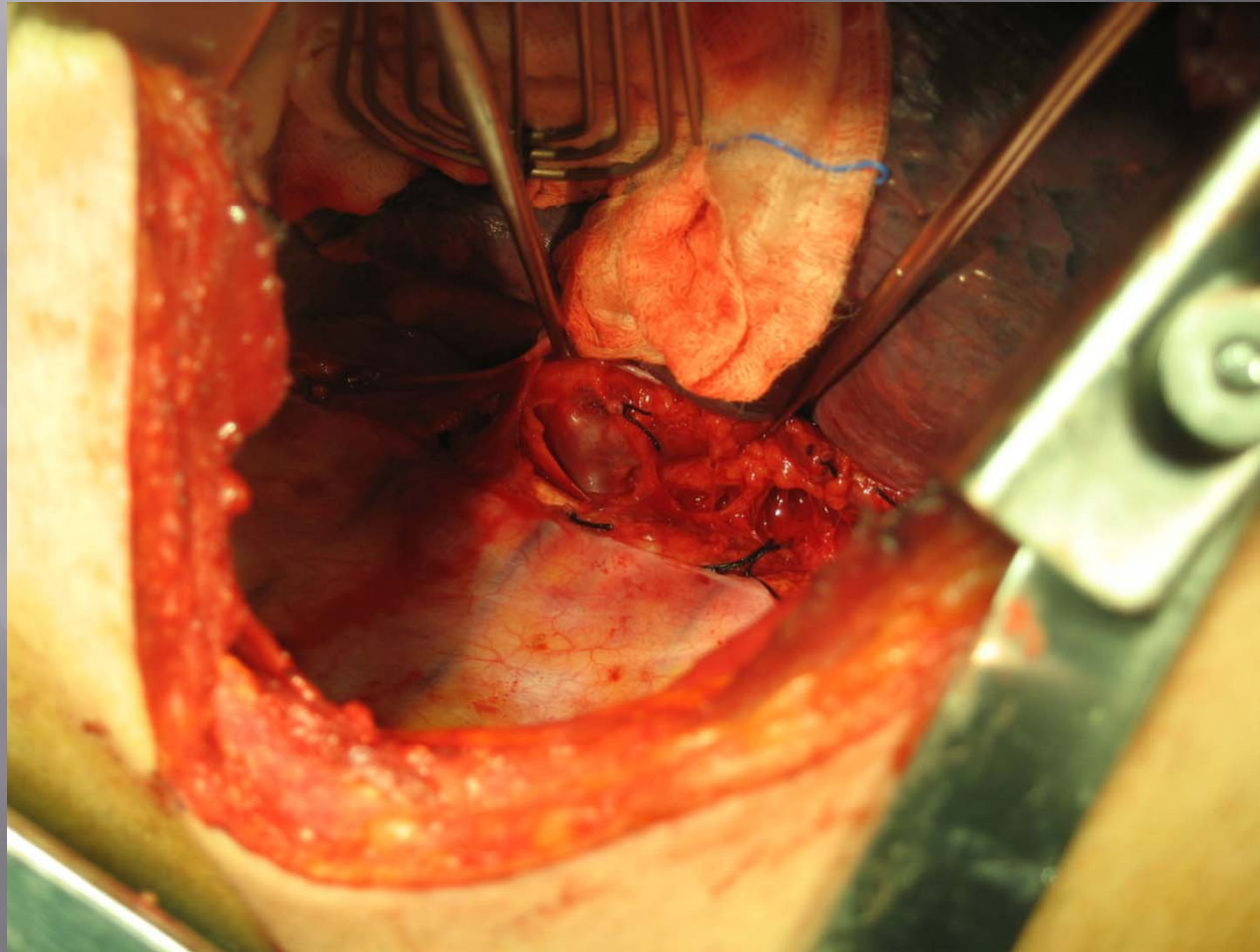
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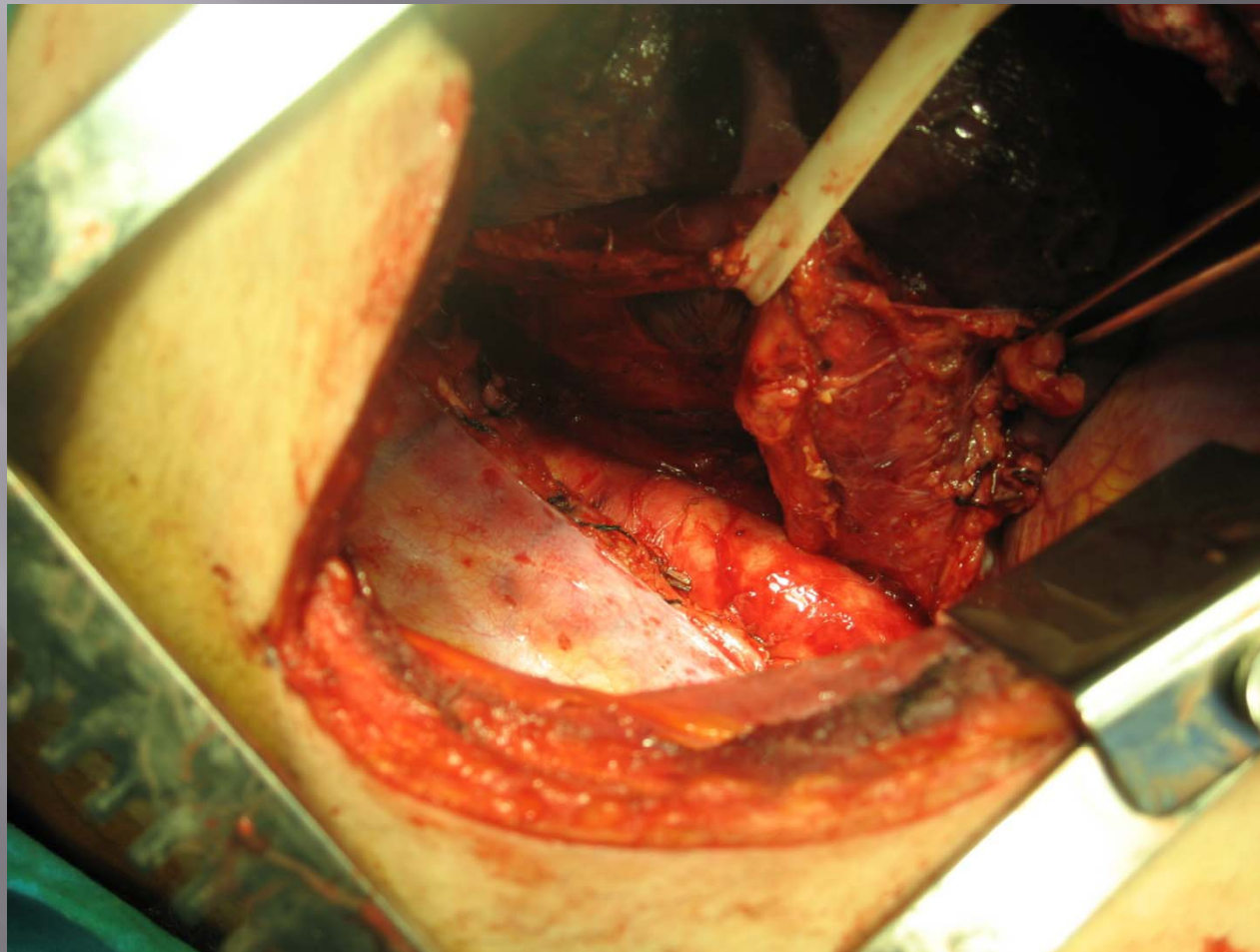
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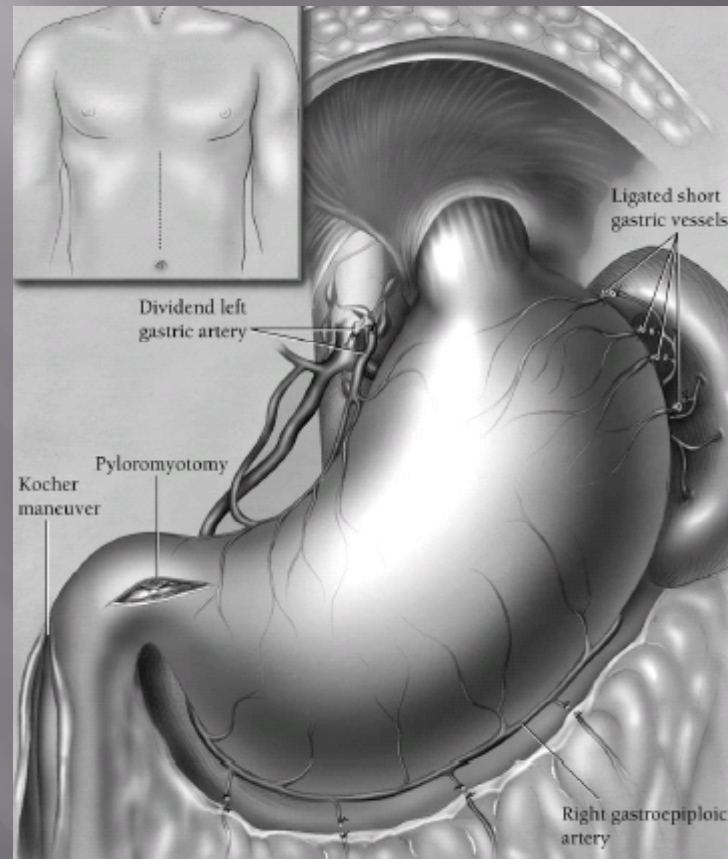
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Διαθωρακική Οισοφαγεκτομή ΔΘΟ



Διαθωρακική Οισοφαγεκτομή ΔΘΟ



Διαθωρακική Οισοφαγεκτομή ΔΘΟ

Curative Resection for Esophageal Adenocarcinoma Analysis Of 100 En Bloc Esophagectomies

Jeffrey A. Hagen, MD, Steven R. DeMeester, MD, Jeffrey H. Peters, MD, Para Chandrasoma, MD, and Tom R. DeMeester, MD

From the Department of Surgery, Keck School of Medicine, University of Southern California, Los Angeles, California

ANNALS OF SURGERY

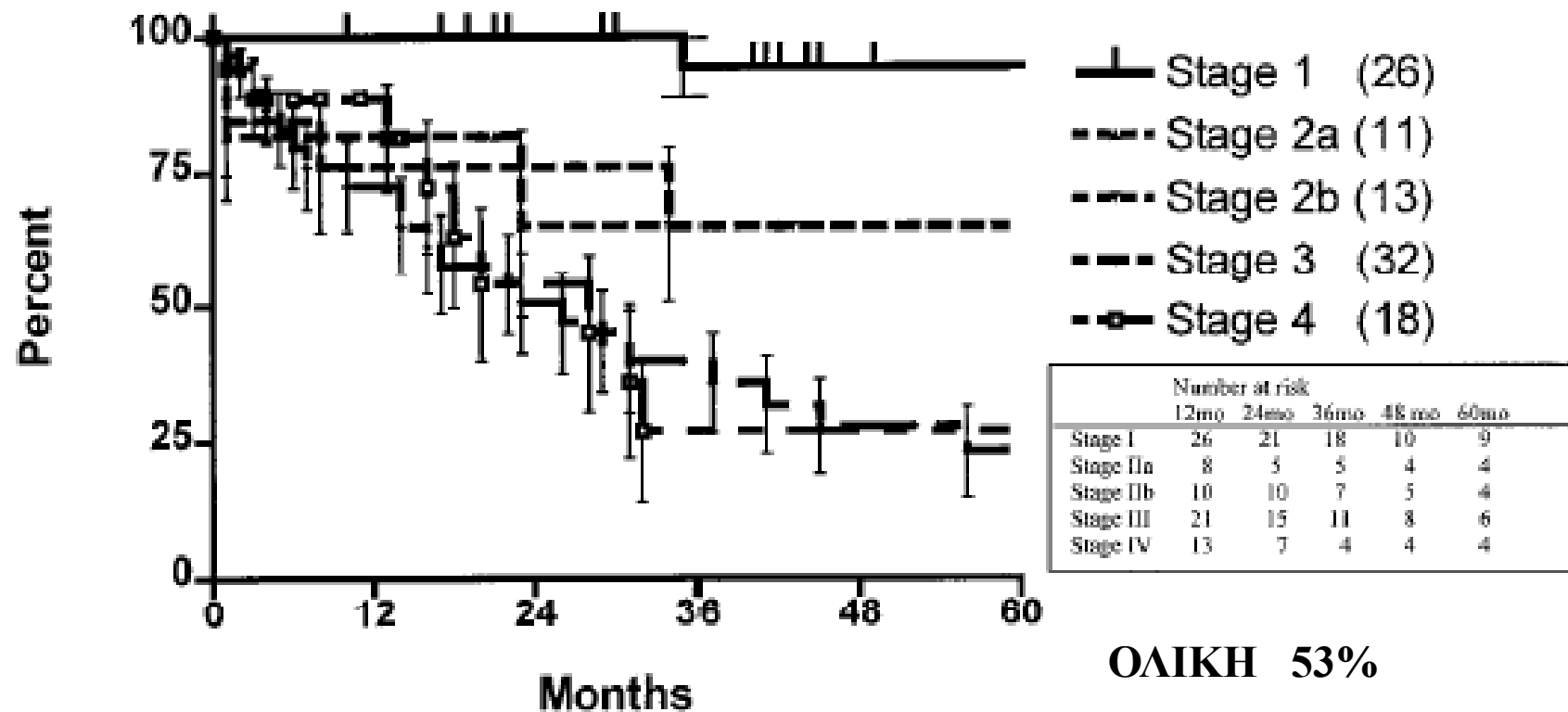
Vol. 234, No. 4, 520–531

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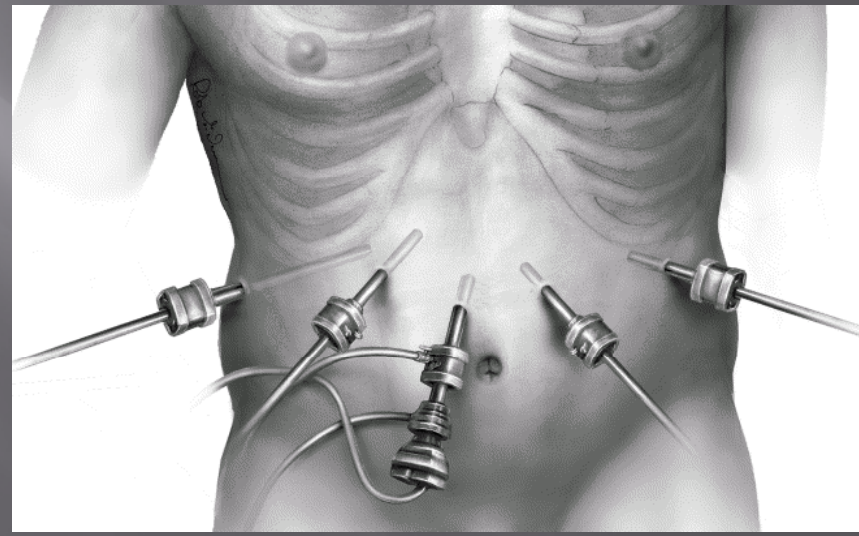
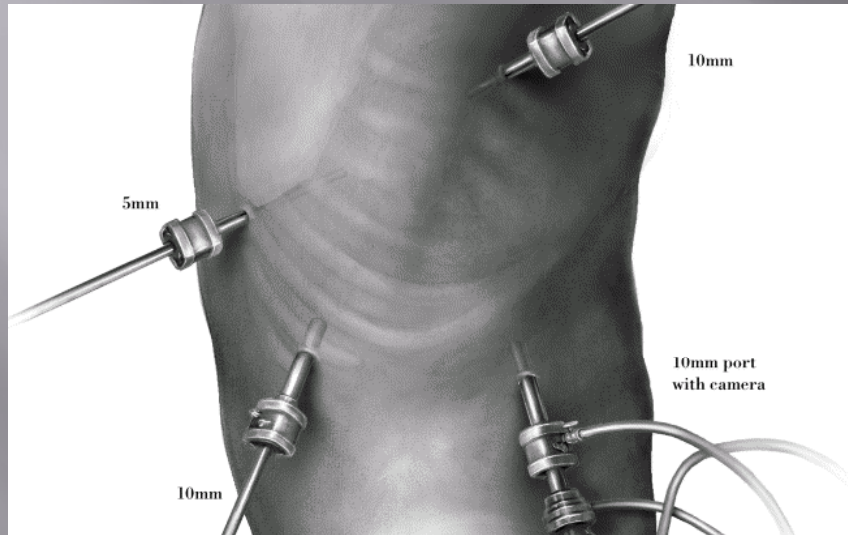
Διαθωρακική Οισοφαγεκτομή ΔΘΟ

Πάρεση Λαρυγγικού	4%
Ατελεκτασία/Πνευμονία	19%
Διαφυγή	10%
Διαστολές	12%
Θνητότητα	6%

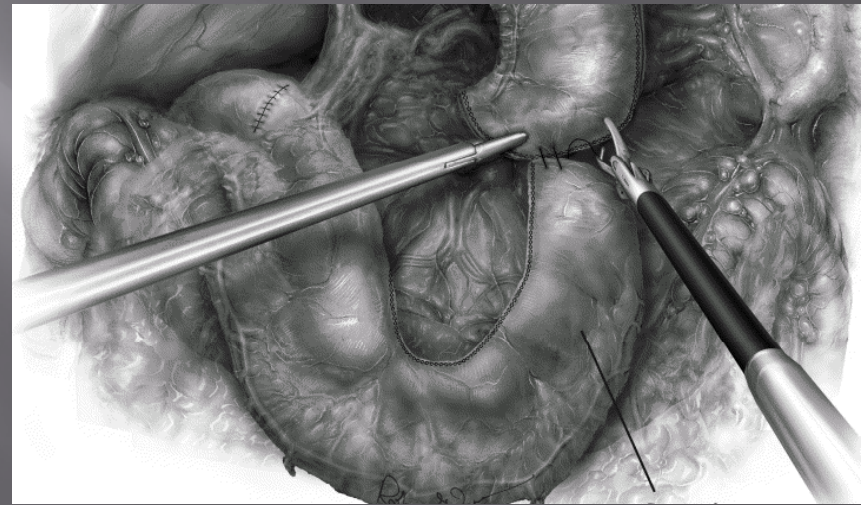
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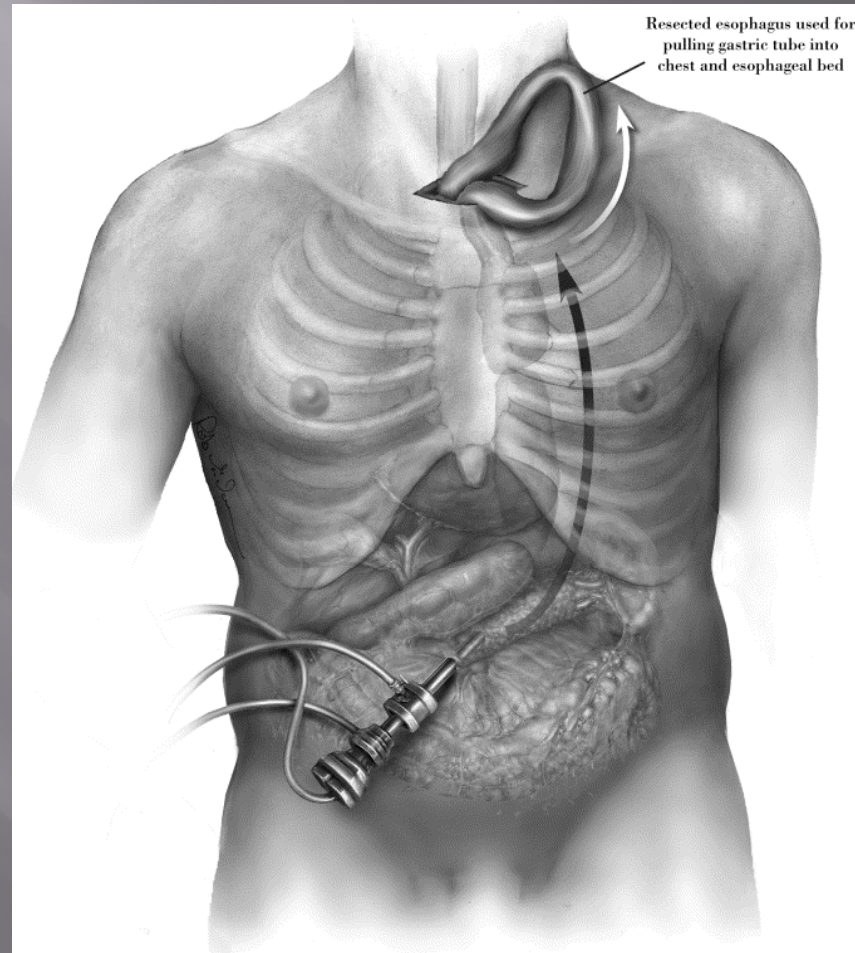
Ελάχιστη Επεμβατική Οισοφαγεκτομή



Ελάχιστη Επεμβατική Οισοφαγεκτομή



Ελάχιστη Επεμβατική Οισοφαγεκτομή



Systematic review of minimally invasive resection for gastro-oesophageal cancer

E. H. Gemmill and P. McCulloch

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Correspondence to: Mr P. McCulloch (e-mail: peter.mcculloch@nds.ox.ac.uk)

Background: This article reviews the evidence on the safety and efficacy of minimally invasive surgery for gastric and oesophageal cancer.

Methods: An electronic search of the literature between 1997 and 2007 was undertaken to identify primary studies and systematic reviews; studies were retrieved and analysed using predetermined criteria. Information on the safety and efficacy of minimally invasive surgery for gastric and oesophageal cancer was recorded and analysed.

Results: From 188 abstracts reviewed, 46 eligible studies were identified, 23 on oesophagectomy and 23 on gastrectomy. There were 35 case series, eight case-matched studies and three randomized controlled trials. Compared with the contemporary results of open surgery, reports on minimally invasive surgery indicate potentially favourable outcomes in terms of operative blood loss, recovery of gastrointestinal function and hospital stay. However, the quality of the data was generally poor, with many potential sources of bias.

Conclusion: Minimally invasive surgery is feasible but evidence of benefit is currently weak.

Ποια τεχνική είναι η πιο ωφέλιμη;



ΕΠΙΠΛΟΚΕΣ



ΛΕΜΦΑΔΕΝΙΚΟΣ

Ποια τεχνική είναι η πιο ωφέλιμη;

- ▣ Η απάντηση είναι δύσκολη
 - Σπάνια νόσος
 - Έλλειψη συνεργασίας κέντρων για την πραγματοποίηση μελετών
 - Στοιχεία από προσωπικές σειρές

Ποια τεχνική είναι η πιο ωφέλιμη;

The New England Journal of Medicine

EXTENDED TRANSTHORACIC RESECTION COMPARED WITH LIMITED TRANSHIATAL RESECTION FOR ADENOCARCINOMA OF THE ESOPHAGUS

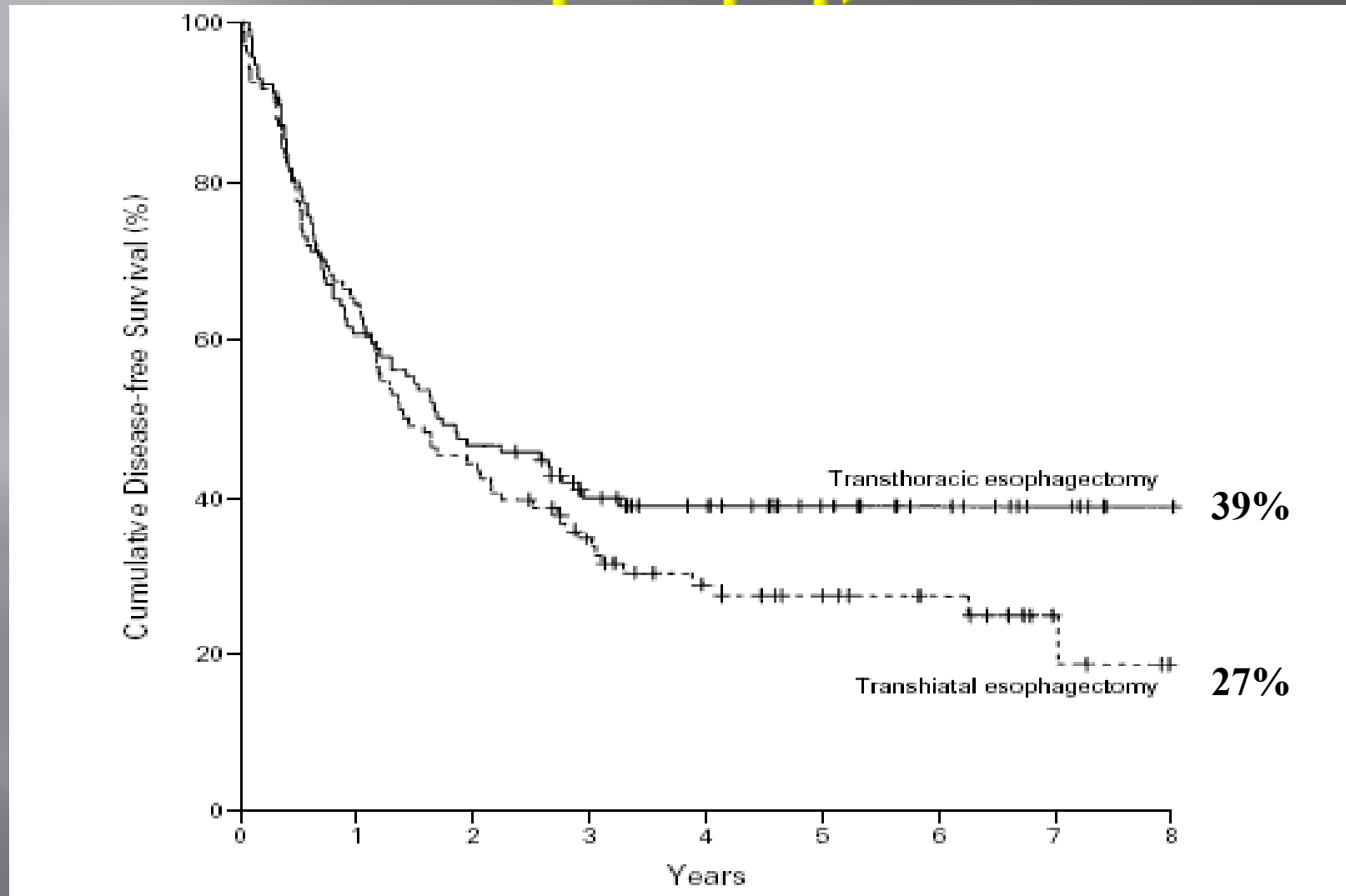
JAN B.F. HULSCHER, M.D., JOHANNA W. VAN SANDICK, M.D., ANGELA G.E.M. DE BOER, PH.D.,
BAS P.L. WIJNHOVEN, M.D., JAN G.P. TIJSSEN, PH.D., PAUL FOCKENS, M.D., PEEP F.M. STALMEIER, PH.D.,
FIEBO J.W. TEN KATE, M.D., HERMAN VAN DEKKEN, M.D., HUUG OBERTOP, M.D., HUGO W. TILANUS, M.D.,
AND J. JAN B. VAN LANSCHOT, M.D.

N Engl J Med, Vol. 347, No. 21 • November 21, 2002

Ποια τεχνική είναι η πιο ωφέλιμη;

VARIABLE	TRANSHIATAL ESOPHAGECTOMY (N= 106)	TRANSTHORACIC ESOPHAGECTOMY (N= 114)	P VALUE
Postoperative complications — no. (%)			
Pulmonary complications*	29 (27)	65 (57)	<0.001
Cardiac complications	17 (16)	30 (26)	0.10
Anastomotic leakage†	15 (14)	18 (16)	0.85
Subclinical	9 (8)	8 (7)	
Clinical	6 (6)	10 (9)	
Vocal-cord paralysis‡	14 (13)	24 (21)	0.15
Chylous leakage	2 (2)	11 (10)	0.02
Wound infection	8 (8)	11 (10)	0.53
Ventilation time — days			<0.001
Median	1	2	
Range	0–19	0–76	
ICU–MCU stay — days§			<0.001
Median	2	6	
Range	0–38	0–79	
Hospital stay — days¶			<0.001
Median	15	19	
Range	4–63	7–154	
In-hospital mortality — no. (%)	2 (2)	5 (4)	0.45

Ποια τεχνική είναι η πιο ωφέλιμη;



Ποια τεχνική είναι η πιο ωφέλιμη;

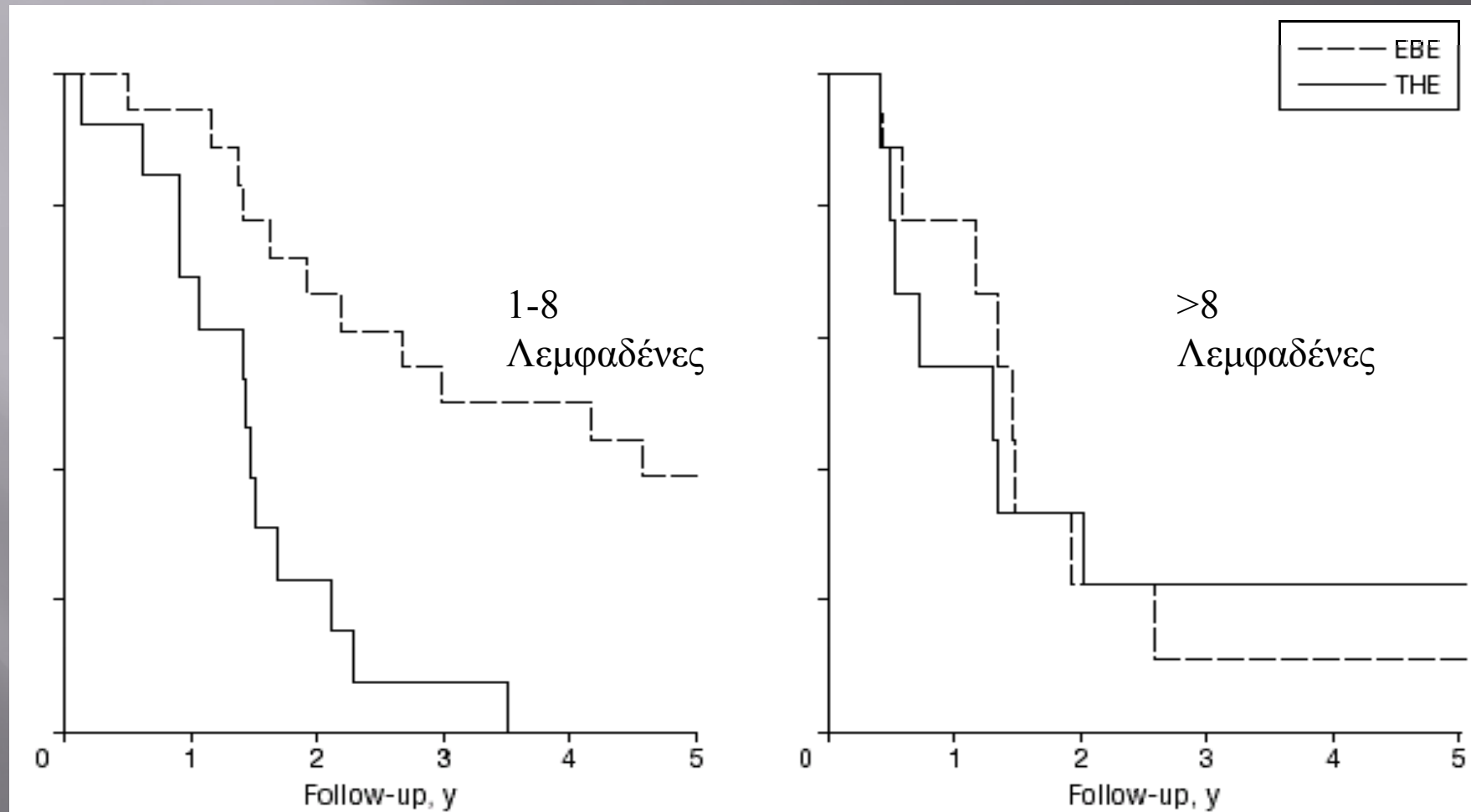
En Bloc vs Transhiatal Esophagectomy for Stage T3 N1 Adenocarcinoma of the Distal Esophagus

*Jan Johansson, MD; Tom R. DeMeester, MD; Jeffrey A. Hagen, MD; Steven R. DeMeester, MD;
Jeffrey H. Peters, MD; Stefan Öberg, MD; Cedric G. Bremner, MD*

27%

Arch Surg. 2004;139:627-633

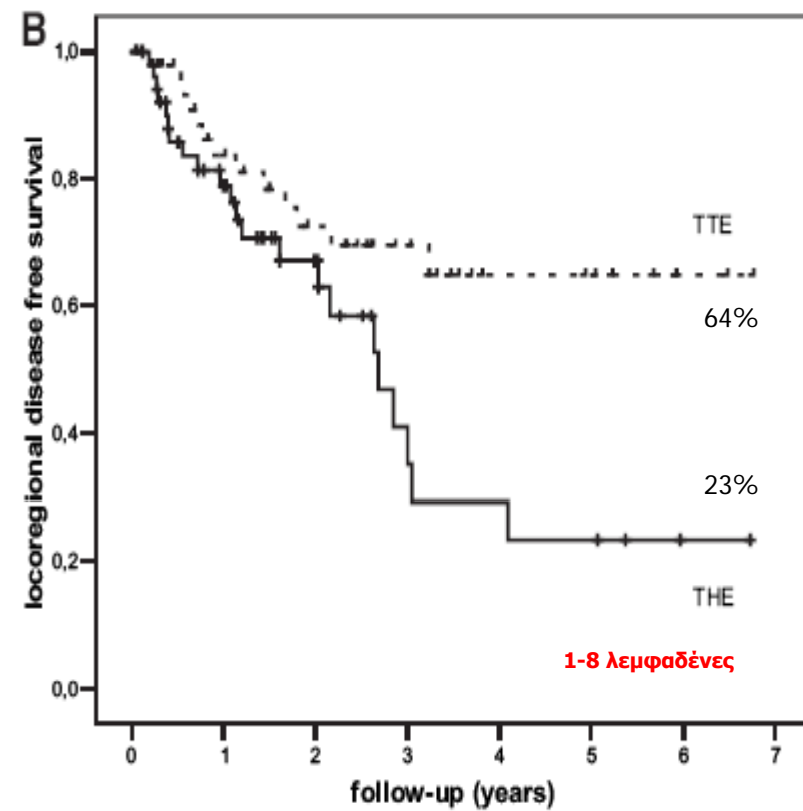
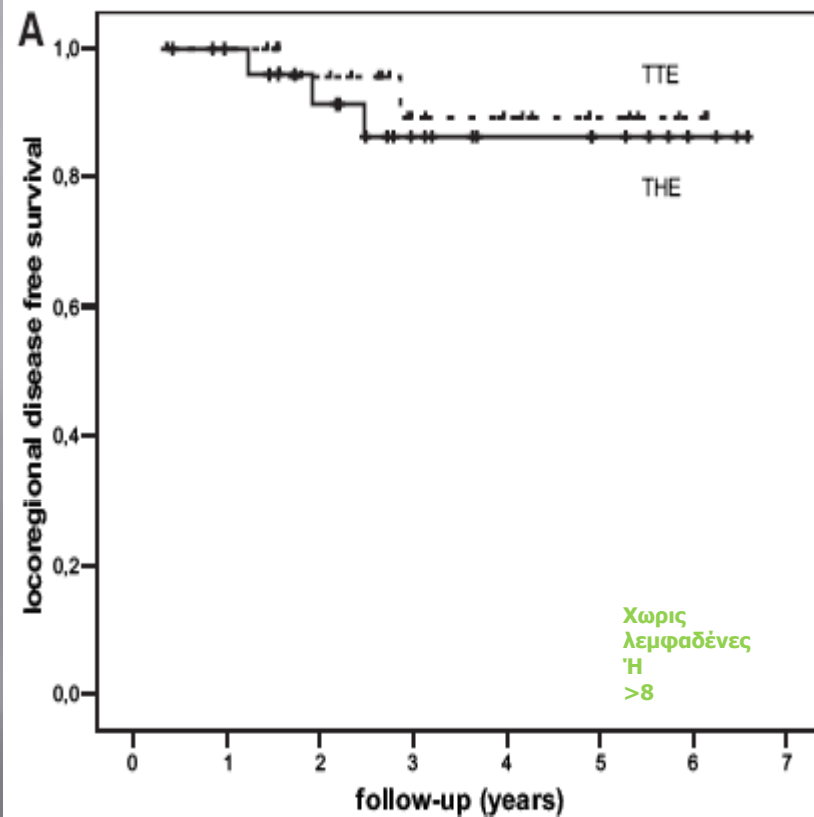
Ποια τεχνική είναι η πιο ωφέλιμη;



Extended Transthoracic Resection Compared With Limited Transhiatal Resection for Adenocarcinoma of the Mid/Distal Esophagus

Five-Year Survival of a Randomized Clinical Trial

Jikke M. T. Omloo, MD, Sjoerd M. Lagarde, MD,* Jan B. F. Hulscher, MD,*
Johannes B. Reitsma, MD, PhD,† Paul Fockens, MD, PhD,‡ Herman van Dekken, MD, PhD,§
Fiebo J. W. ten Kate, MD,¶ Huug Obertop, MD,|| Hugo W. Tilanus, MD, PhD,||
and J. Jan B. van Lanschot, MD||*



Πρωτόκολλο Αντιμετώπισης Καρκίνου Οισοφάγου

*Μονάδα Χειρουργικής Ανωτέρου
Πεπτικού*

Α Προπ. Χειρουργική Κλιν. Παν.
Αθηνών

**ΒΙΟΨΙΑ
ΚΑΡΚΙΝΟΥ**

**ΠΡΟΕΓΧΕΙΡΗΤΙΚΗ
ΣΤΑΔΙΟΠΟΙΗΣΗ**

**ΑΠΟΜ. ΜΕΤΑΣΤΑΣΕΙΣ
T4
ΑΠΟΜ ΛΕΜΦΑΔΕΝΕΣ**

ΤΟΠΙΚΗ ΝΟΣΟΣ

**ΧΗΜ/ΑΚΤΙΝΟ
STENT**

**ΕΚΤΙΜΗΣΗ ΑΣΘΕΝΟΥΣ
ΠΝΕΥΜΟΝ.
ΚΑΡΔΙΟΛ.
ΗΛΙΚΙΑ**

**ΠΡΩΙΜΗ ΝΟΣΟΣ
EUS/BARRETT**

ΕΥΝΟΙΚΗ

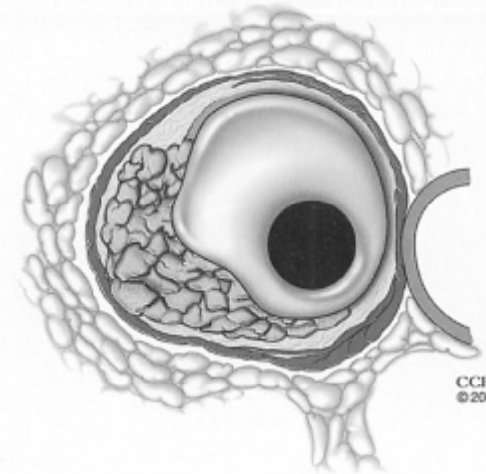
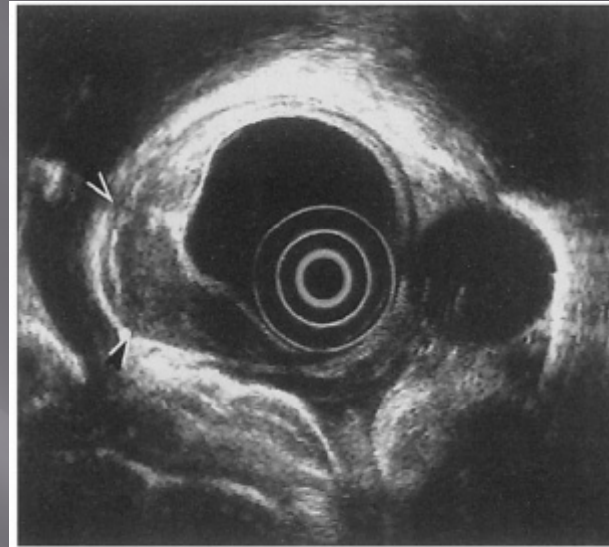
ΜΗ ΕΥΝΟΙΚΗ

**ΔΙΑΘΩΡΑΚΙΚΗ
ΛΕΜΦΑΔΕΝΙΚΟΣ
ΔΥΟ ΠΕΔΙΩΝ**

ΔΙΑ ΤΟΥ ΔΙΑΦΡΑΓΜΑΤΟΣ

Εξέλιξη

- Διοισοφάγειος Υπέρηχος



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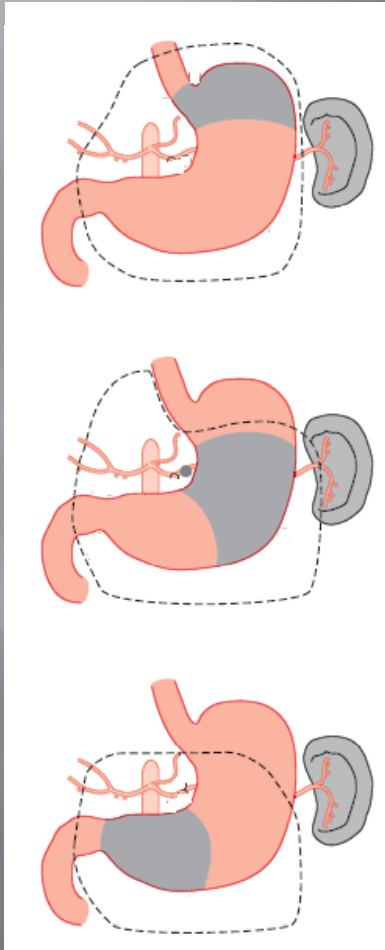
Εξέλιξη

- ▣ **PET-CT Scan**

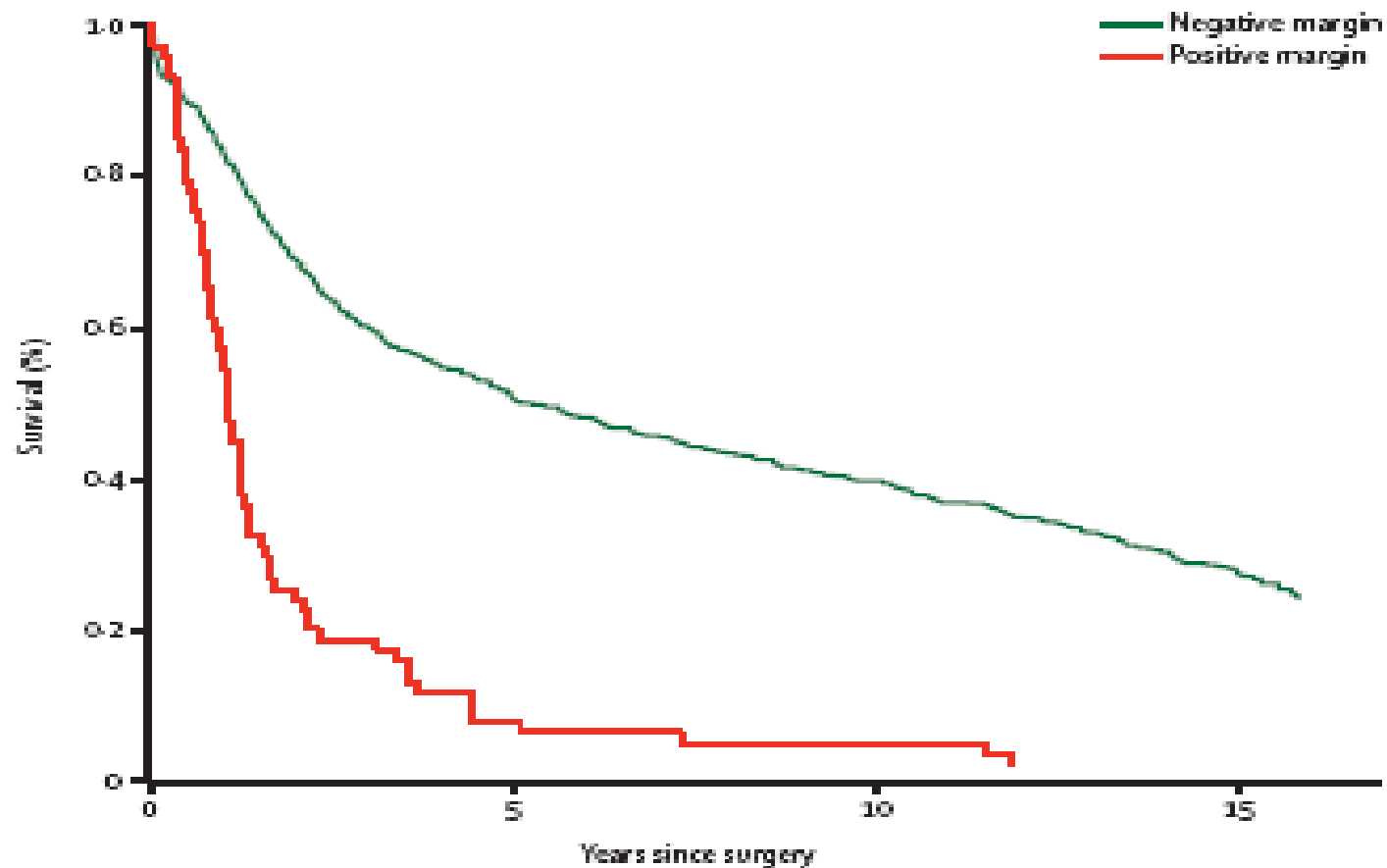


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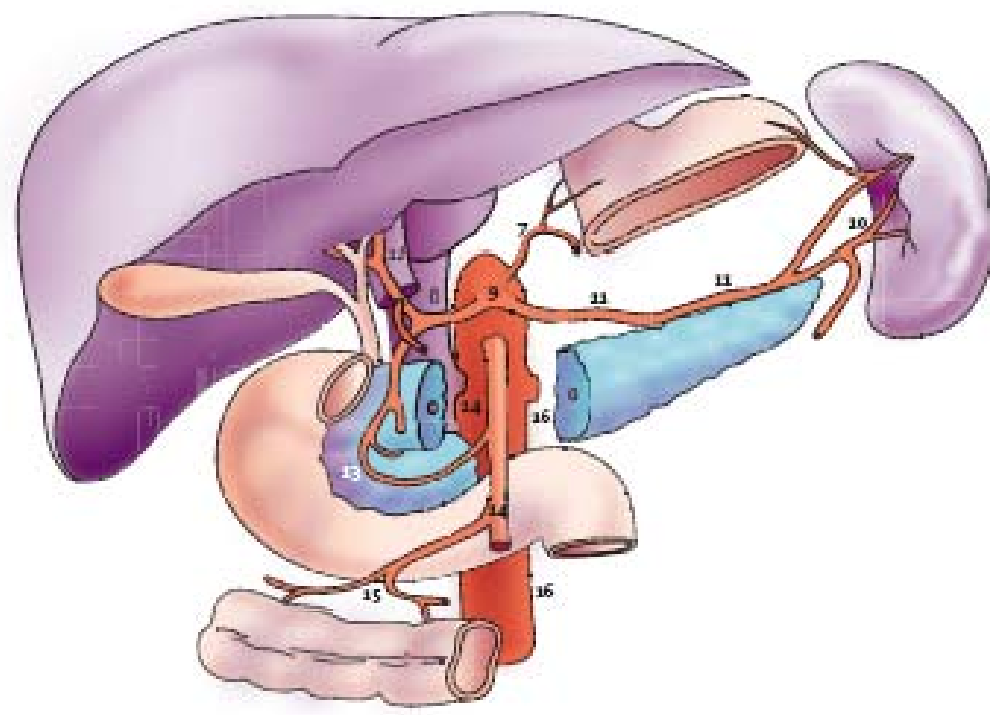
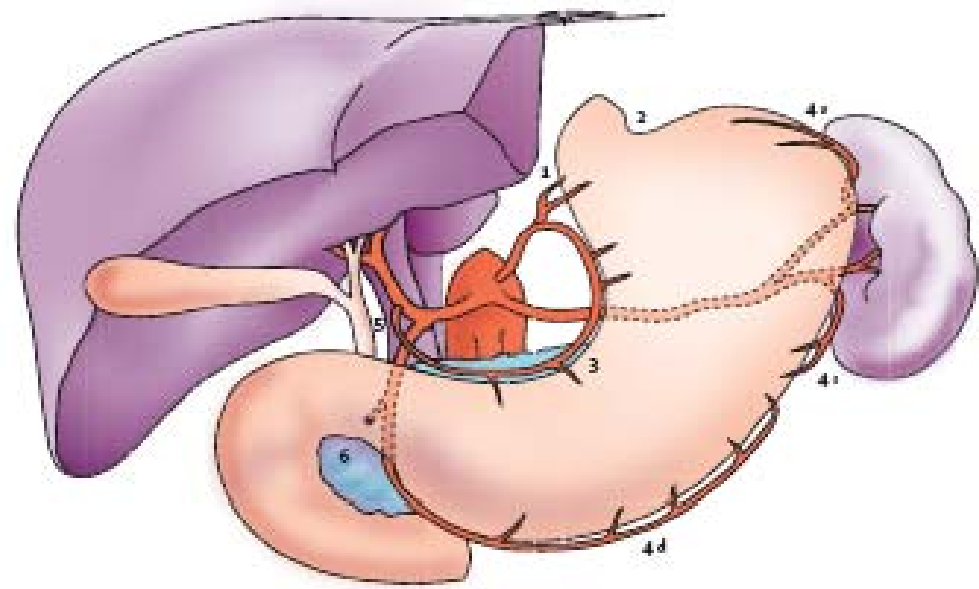
Στόμαχος



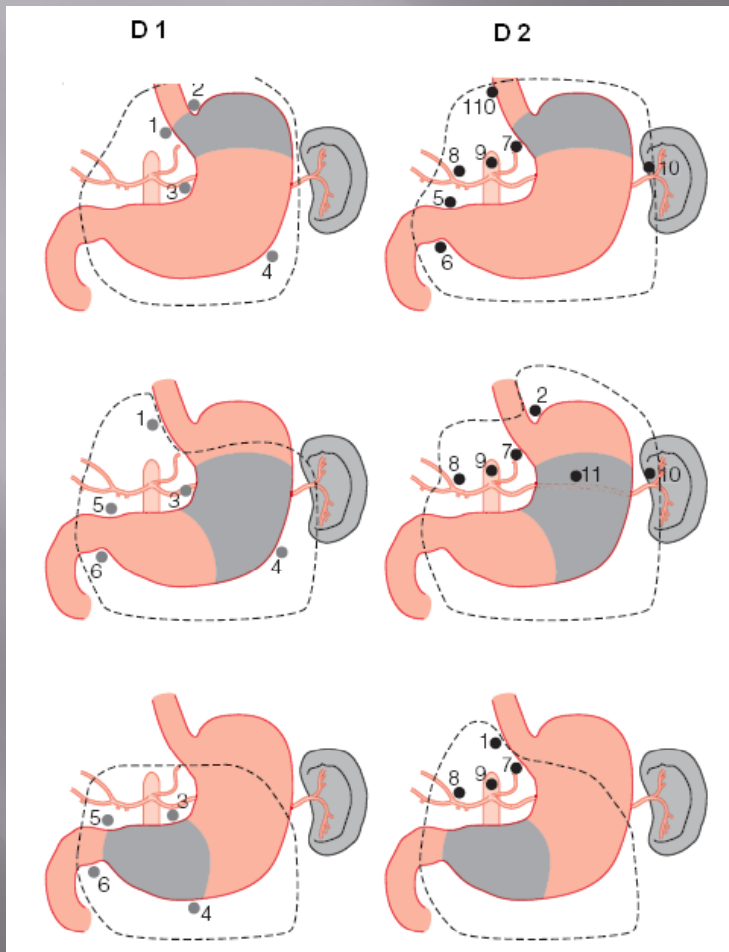
- ▣ 5 εκ
- ▣ Γαστρεκτομή ανάλογα με την εντόπιση
- ▣ 10% θετικά όρια σε μερική γαστρεκτομή



Number at risk		0	2	5	7	10	12	15
Negative margin		639	408	326	283	253	214	103
Positive margin		72	14	7	4	4	2	2



Στόμαχος



- ▣ Θεραπεία ρουτίνας στην Ανατολή
- ▣ Μη αναπαραγωγή των αποτελεσμάτων στην Δύση
- ▣ Συμπληρωματική χημειοάκτινο βελτιώνει τα αποτελέσματα των D0 –D1

Στόμαχος

<i>Lymphadenectomy trials</i>	<i>Inclusion criteria</i>	<i>N</i>	<i>Mortality/survival</i>	<i>Mortality/survival</i>	<i>P value (survival)</i>	<i>General comments</i>
Cape Town ^{209,210}	T1-3; N0-1; M0, age <75	43	D1 0%/78% (3-year survival)	D2 0%/76% (3-year survival)	n.s.	Solid design. Early closure due to poor accrual & inadequate power to detect.
British MRC ²¹⁶⁻²¹⁸	Stage I-III, age >20	400	6%/35% (5-year survival)	13%/33% (5-year survival)	n.s.	Unique definition of "D1" and "D2". Skimpy quality control.
Dutch ^{219-220,222}	Stage I-II, age <85	711	4%/45% (5-year survival)	10%/47% (5-year survival)	n.s.	Solid design. Despite superb quality control efforts, substantial protocol noncompliance. Trial question confounded by adverse effect of pancreaticosplenectomy.
Japanese D2 vs. D4 Trial ²²⁶	Deep T2-T4		D2 0.8%/–	D4 0.8%/–	ongoing	Ongoing trial. Immature with respect to survival.
French ²¹¹	Antral tumor, M0		Subtotal 3%/48% (5-year survival)	Total 1%/48% (5-year survival)	n.s.	Pioneering trial. Straightforward design.
Italian ^{213,214}	>6 cm proximal margin possible all, but not mandated M0		1%/65% (5-year survival)	2%/62% (5-year survival)	n.s.	D2 recommended all, but not mandated. Straightforward design.
Hong Kong ²¹⁵	Antral >6 cm margin, M0, age <75		Subtotal + D1 0%/1,511 median survival	Total + D3 3%/922 days median survival	0.04 days 0.07	Dual P values reported. Transfusion issue.

increased mortality after D2 dissection (risk ratio 2.23, 95% CI 1.45–3.45), without a benefit in survival; hazard ratio (HR) 0.95 (95% CI 0.83–1.09).

D2 dissection might be beneficial if postoperative mortality can be avoided. More extended dissections than D2 with para-aortic lymph-node dissections did not seem to have any survival benefit

Στόμαχος

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D2 Lymphadenectomy Alone or with Para-aortic Nodal Dissection for Gastric Cancer

Mitsuru Sasako, M.D., Takeshi Sano, M.D., Seiichiro Yamamoto, Ph.D., Yukinori Kurokawa, M.D.,
Atsushi Nashimoto, M.D., Akira Kurita, M.D., Masahiro Hiratsuka, M.D., Toshimasa Tsujinaka, M.D.,
Taira Kinoshita, M.D., Kuniyoshi Arai, M.D., Yoshitaka Yamamura, M.D., and Kunio Okajima, M.D.,
for the Japan Clinical Oncology Group

CONCLUSIONS

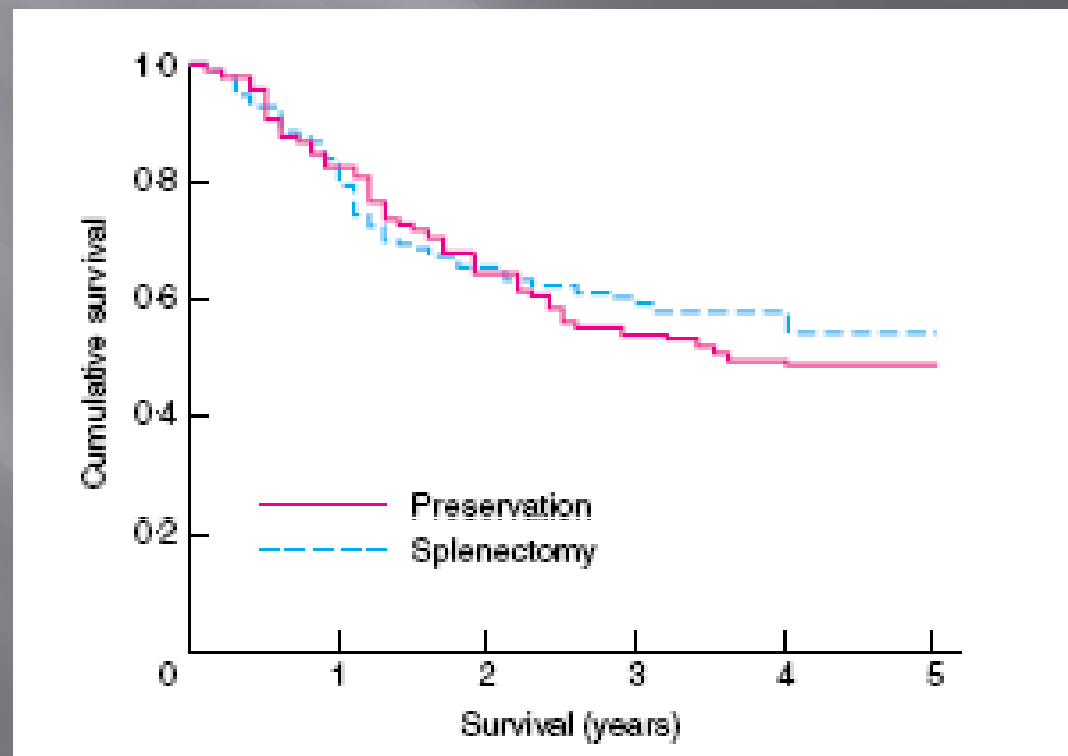
As compared with D2 lymphadenectomy alone, treatment with D2 lymphadenectomy plus PAND does not improve the survival rate in curable gastric cancer. (ClinicalTrials.gov number, NCT00149279.)

N ENGL J MED 359:5 WWW.NEJM.ORG JULY 31, 2008

Randomized clinical trial

Randomized clinical trial of splenectomy *versus* splenic preservation in patients with proximal gastric cancer

W. Yu, G. S. Choi and H. Y. Chung



subgroup analyses, that there is approximately a 30% survival advantage for patients with T3 cancers undergoing D2 surgery

Συμπεράσματα

- ▣ Η ογκολογική χειρουργική του ανώτερου πεπτικού έχει πλησιάσει τα οριά της
- ▣ Καλύτερη προεγχειρητική σταδιοποίηση και επιλογή ασθενών οδηγεί στα ιδανικότερα αποτελέσματα
- ▣ Η δημιουργία ομάδων και κέντρων εξειδίκευσης αποτελεί το μέλλον

