Quality criteria in oncologic thoracic surgery

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Quality Evaluation

* Appropriate medical diplomation
* Multidisciplinary staff
* Hospital and surgeon volume activity
* Good practices in Thor. Surg.
* A good technical environment

The Medical Competence

Initial formation

- The DESC in thoracic surgery
- Appartenence in french college (FTCVC)
- Specific oncologic diploma (DIU)
- The european board

Continuing Medical Education

- CME participation
- Thoracic congress participation
- Multidisciplinary staff participation

Multidisciplinary staff

RCP (circulaire DHOS du 22/02/2005)

*** Organisation**

- in minimally must be present a thoracic surgeon, a medical oncologist and a medical lung specialist

- In minimally two staff monthly

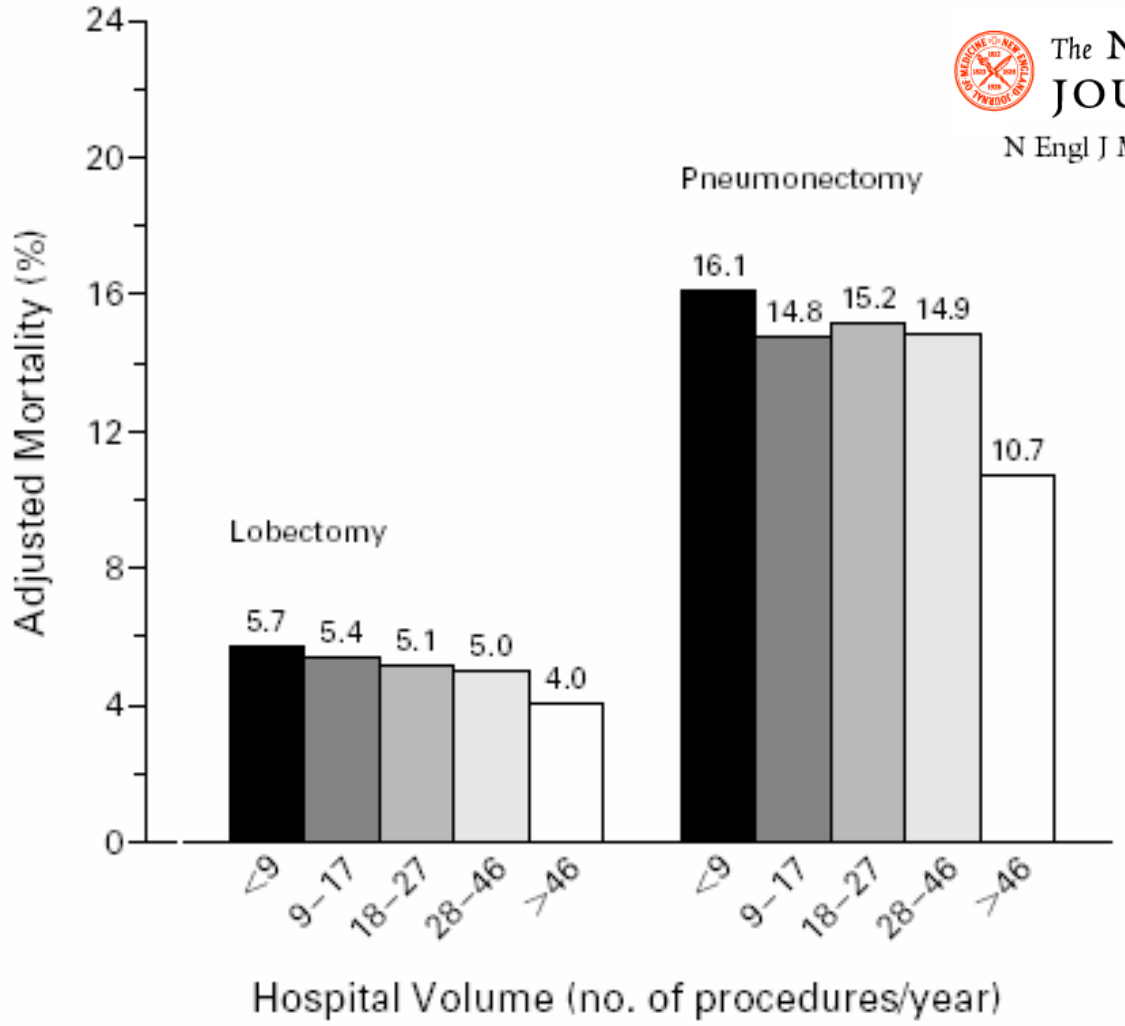
- All new thoracic cancer cases must be presented debated and recorded

Staff report must be included in a folder

ACTIVITY VOLUME

- **In each hospital minimally activity volume is at least 30 curative operations in a year**
- **For a thoracic surgeon minimally activity volume is at least 15 curative operations in a year**

Volume/mortality (Hospital)



The NEW ENGLAND JOURNAL of MEDICINE
N Engl J Med, Vol. 346, No. 15 · April 11, 2002

HOSPITAL VOLUME AND SURGICAL MORTALITY IN THE UNITED STATES

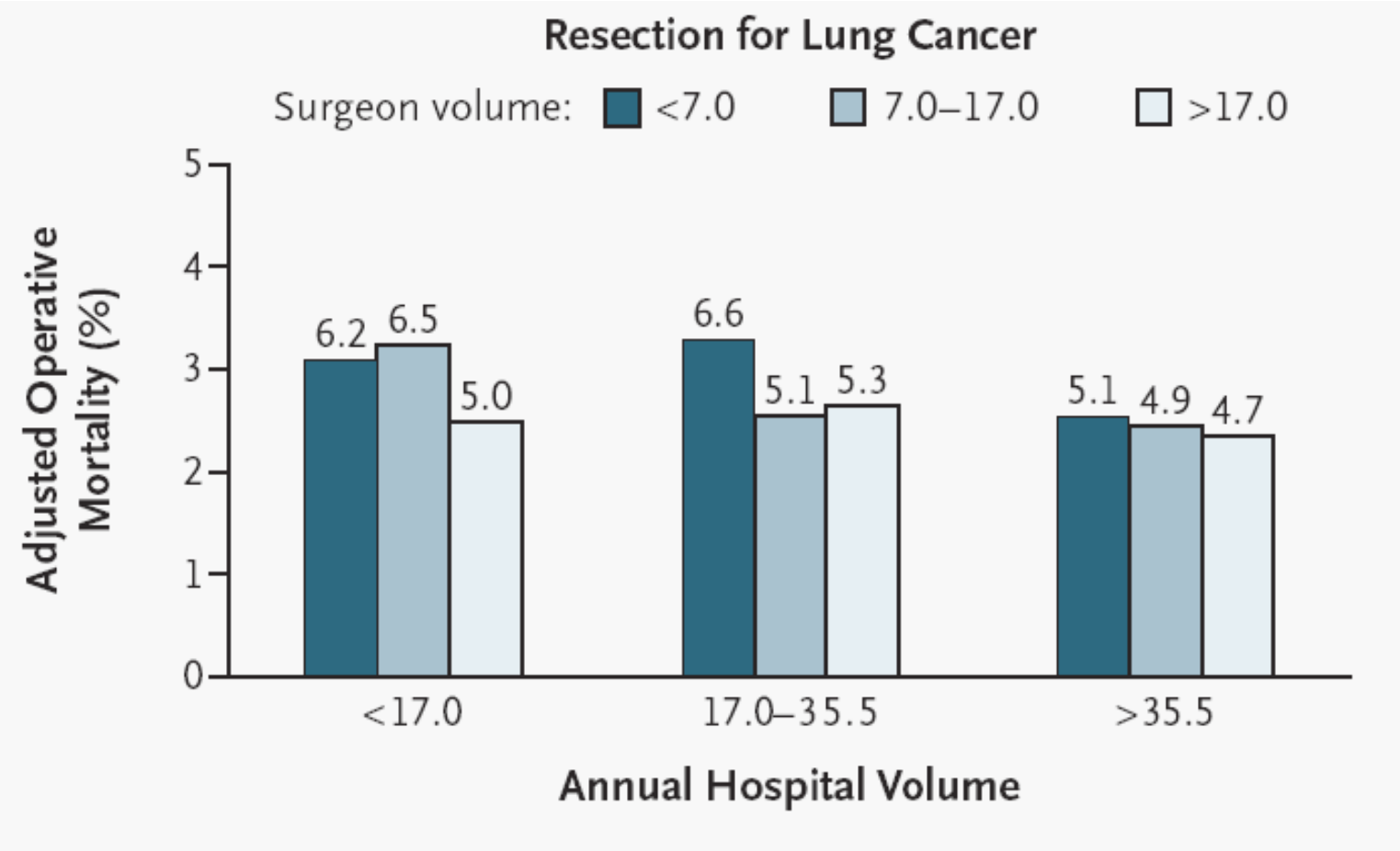
JOHN D. BIRKMEYER, M.D., ANDREA E. SIEWERS, M.P.H., EMILY V.A. FINLAYSON, M.D., THERESE A. STUKEL, PH.D., F. LEE LUCAS, PH.D., IDA BATISTA, B.A., H. GILBERT WELCH, M.D., M.P.H., AND DAVID E. WENNBERG, M.D., M.P.H.

Volume/mortality (Surgeon)

Surgeon Volume and Operative Mortality in the United States

John D. Birkmeyer, M.D., Therese A. Stukel, Ph.D., Andrea E. Siewers, M.P.H., Philip P. Goodney, M.D., David E. Wennberg, M.D., M.P.H., and F. Lee Lucas, Ph.D.

The NEW ENGLAND JOURNAL of MEDICINE
N Engl J Med 2003;349:2117-27.



Good practices in oncologic Thor. Surg

- **Thoracic approches**
- Pulmonary resections
- Vasculary sequences
- Extented resections
- Lymphadenectomy evaluation

Thoracic Approches

* Conventional thoracic surgery

  Post. Lat. , Lat. or Ant.Thoracotomy

* Mini invasive surgery

  - Video Thoracoscopic Surgery (VTC)
  - Video Assisted Thoracic Surgery (VATS)
  - Video Assisted Mini-Thoracotomy

VIDEO ASSISTED THORACIC SURGERY (VATS)

V.A. MINI THORACOTOMY

A mini-thoracotomy about 5 to 6 cm long

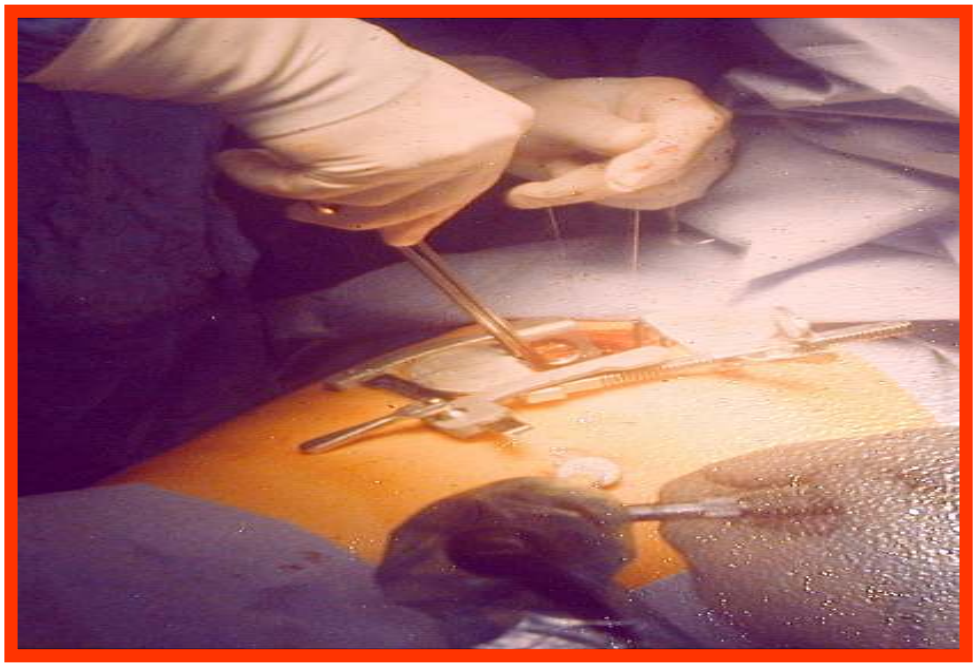
A telescope connected to a video-camera

Double vision in the operating field

Dissection, sutures and extraction are performed through the mini-thoracotomy

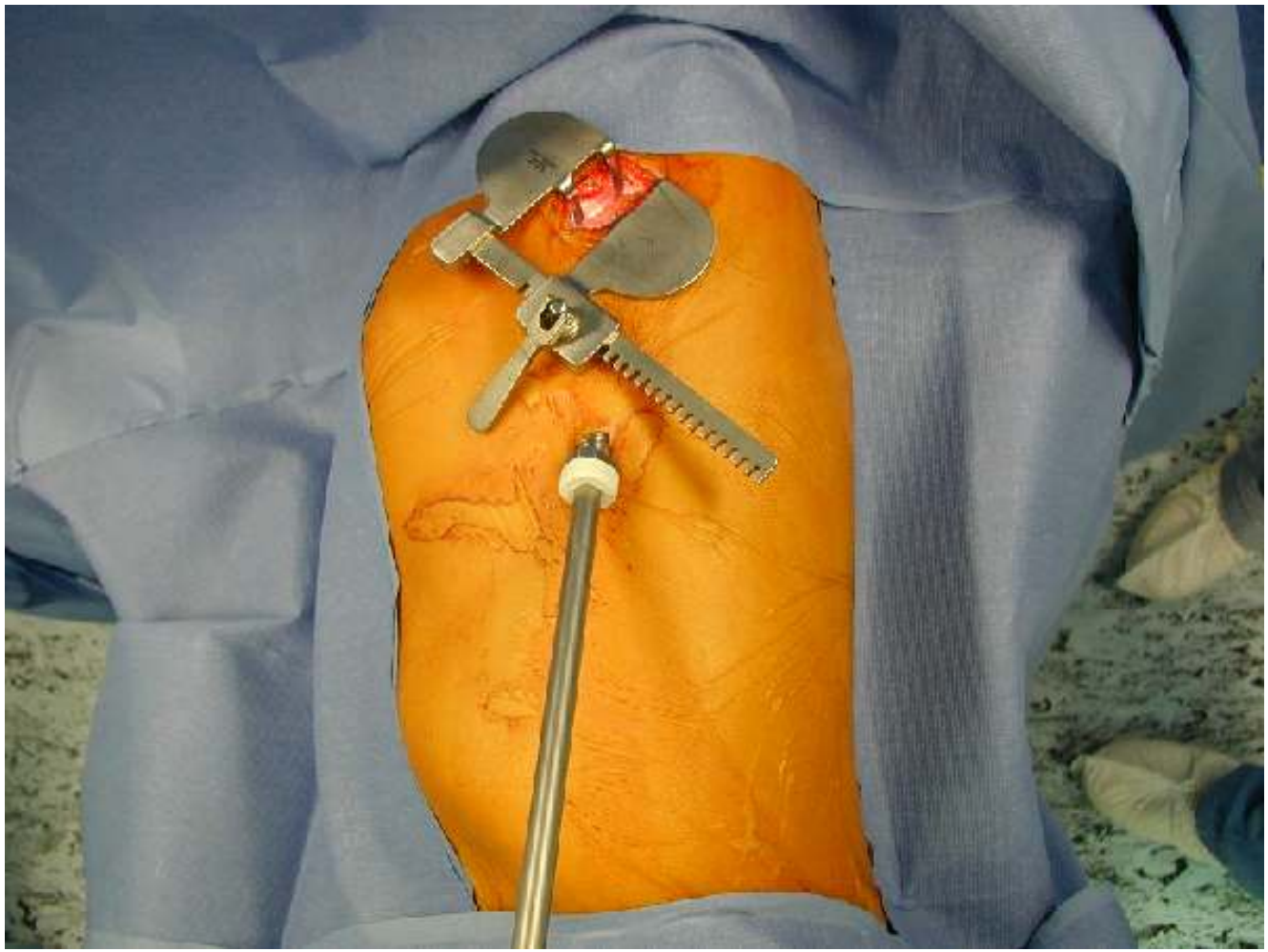
« Total Sécurity »

VATS : Technic



Major resections by Mini-thoracotomy (VATS)

Lobectomy--video-assisted thoracic surgery versus muscle-sparing thoracotomy. A randomized trial.



Two bénéfits

Less pain in post-op period

Esthetic benefit

TJ. Kirby *et al.* J Thorac Cardiovasc Surg 1995; 109: 997-1001

Major pulmonary resections by VATS

Table 3. Mean Daily Values From the Visual Analog Scale

Time	VAMT	MST	*p* Value
Pain reference	0.79 ± 0.33	0.41 ± 0.38	NS
Day 1	1.88 ± 0.67	3 ± 0.94	<0.05
Day 2	1.18 ± 0.44	2.67 ± 0.98	<0.003
Day 4	1.04 ± 0.38	2.13 ± 0.9	<0.008
Day 8	0.68 ± 0.39	1.29 ± 0.68	NS

MST = muscle-sparing thoracotomy; NS = not significant; VAMT = video-assisted minithoracotomy.

rates, including the operative mortality as well as any cancer-related and unrelated death, were 62.8% (confidence interval (CI): 56.8–68.7%) vs. 62.9% (CI: 51.4–74.4%), respectively ($P = 0.60$). The advent of VATS did not influence the patients' survival: 5-year survival rate was 63.9% (CI: 55.3–72.5%) for the period from 1990 to 1992, and 58.8% (CI: 51.7–65.9%) for the period from 1993 to 1999 ($P = 0.65$). Subgroups survival analysis according to the T status did not show any statistically significant difference between the two groups. **Conclusions**: VATS lung resection with lymph node dissection achieved a 5-year survival similar to that achieved by the conventional approach. VATS is a valuable option for the management of selected patients with an early-stage NSCLC.

Good practices in oncologic Thor. Surg

- Thoracic approches
- **Pulmonary resections**
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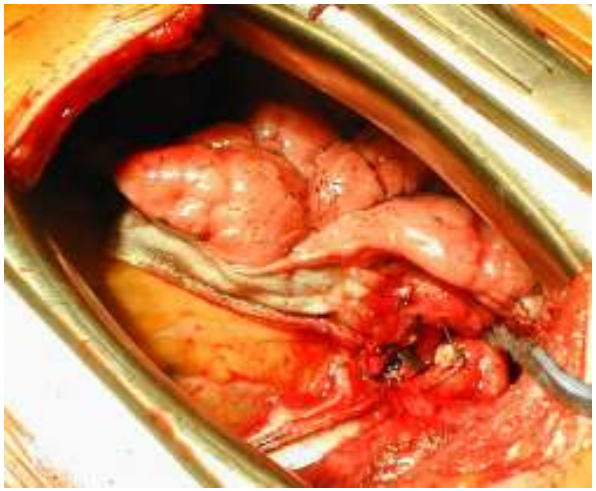
- Lymphadenectomy evaluation

Pulmonary resections

THE ANNALS OF THORACIC SURGERY

Randomized Trial of Lobectomy Versus Limited Resection for T1 N0 Non–Small Cell Lung Cancer

Lung Cancer Study Group (Prepared by Robert J. Ginsberg, MD, and Lawrence V. Rubinstein, PhD)



The same Morbi-mortality

The cancer mortality is in 50% more important in limited R

The local recurrence is in 30% more important in limited R

Fonctional benefit in better in limited resections in 6 months after resection but after 12 months is same in each case.

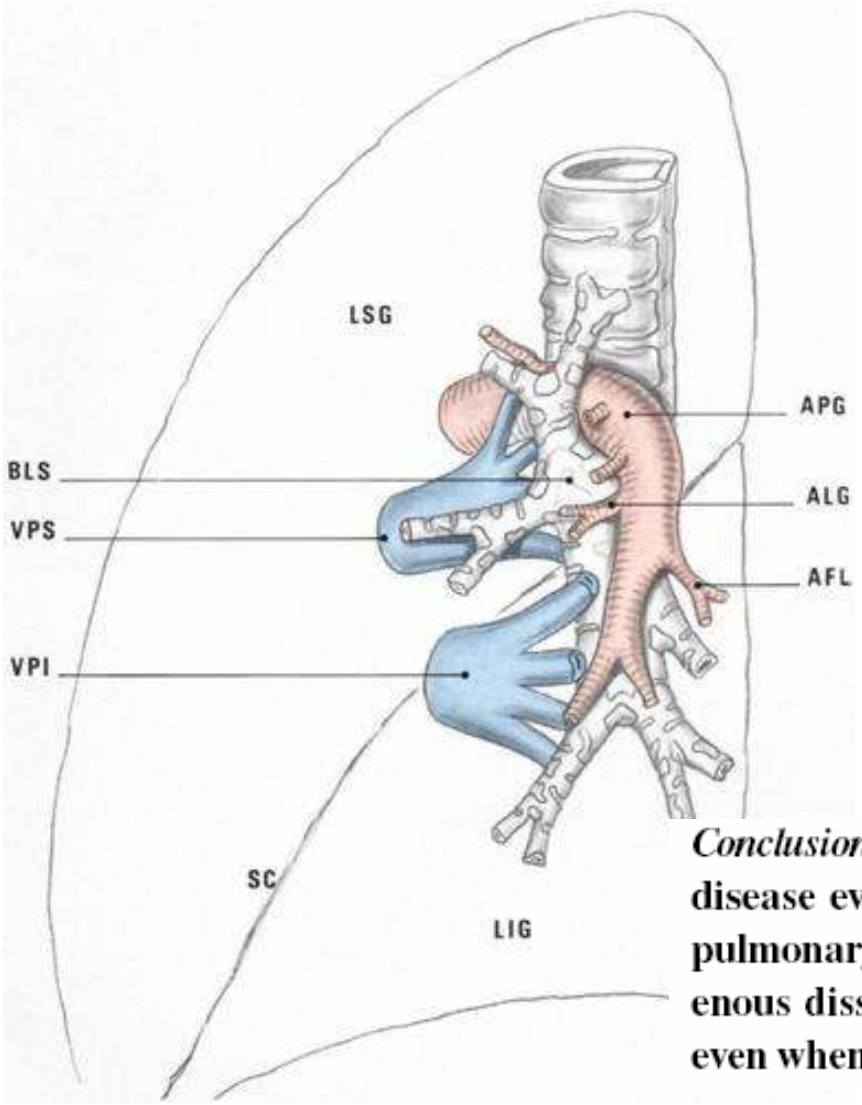
LCSG Ann Thorac Surg 1995; 60:615-22.

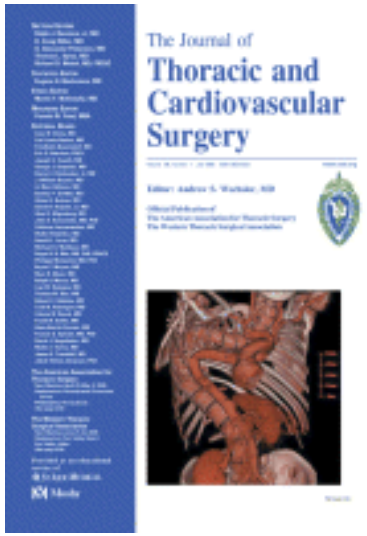
Good practices in oncologic Thor. Surg

- Thoracic approches
- Pulmonary resections
- **Vascular sequences**
- Extented resections
- Lymphadenectomy evaluation

Vascular sequence during operation

THE SEQUENCE OF VESSEL LIGATION AFFECTS TUMOR RELEASE INTO THE CIRCULATION





Yuji Kurusu, MD[a]
Jun-ichi Yamashita, MD[a]
Naoko Hayashi, MD[a]
Seiji Mita, MD[a]
Noboru Fujino, MD[b]
Michio Ogawa, MD[a]

30 pts randomisés en 2 groupes selon la séquence des ligatures vasculaires au cours d'une lobectomie pour cancer

Conclusions: Many patients with non–small-cell lung cancer have systemic disease even when they were thought to have resectable tumors. Ligating the pulmonary vein before ligating the artery may lessen intraoperative hematogenous dissemination. Most small-cell lung cancers represent systemic disease even when considered resectable. (J Thorac Cardiovasc Surg 1998;116:107-13)

Good practices in oncologic Thor. Surg

- Thoracic approches
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- **Extented resections**
- Lymphadenectomy evaluation

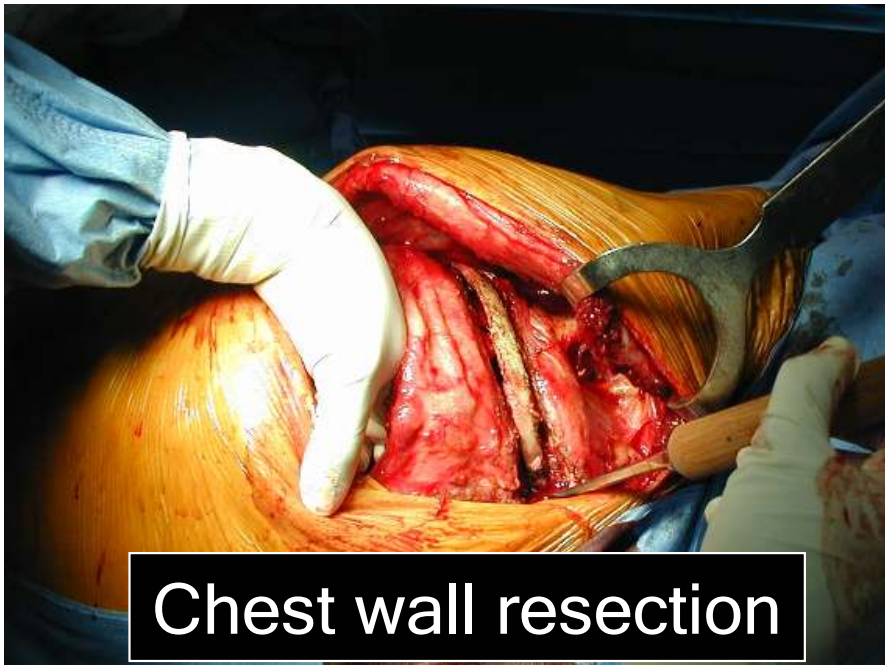
En – bloc - resection

Lung Cancer Invading the Chest Wall: A Plea for En-Bloc Resection but the Need for New Treatment Strategies

Christophe Doddoli, MD, Benoit D'journo, MD, Françoise Le Pimpec-Barthesm
Antoine Dujon, MD, Christophe Foucault, MD, Pascal Thomas, MD, and
Marc Riquet, MD, PhD

Department of Thoracic Surgery, Hôpital Sainte-Marguerite, Marseille, Department of Thoracic Surgery, Hôpital Européen Georges Pompidou, Paris, Thoracic Surgery Unit, Centre Médico-Chirurgicale du Cèdre, Boisguillaume, and UPRES EA 2201, IFR Jean Roche, Marseille, France

THE ANNALS OF THORACIC SURGERY



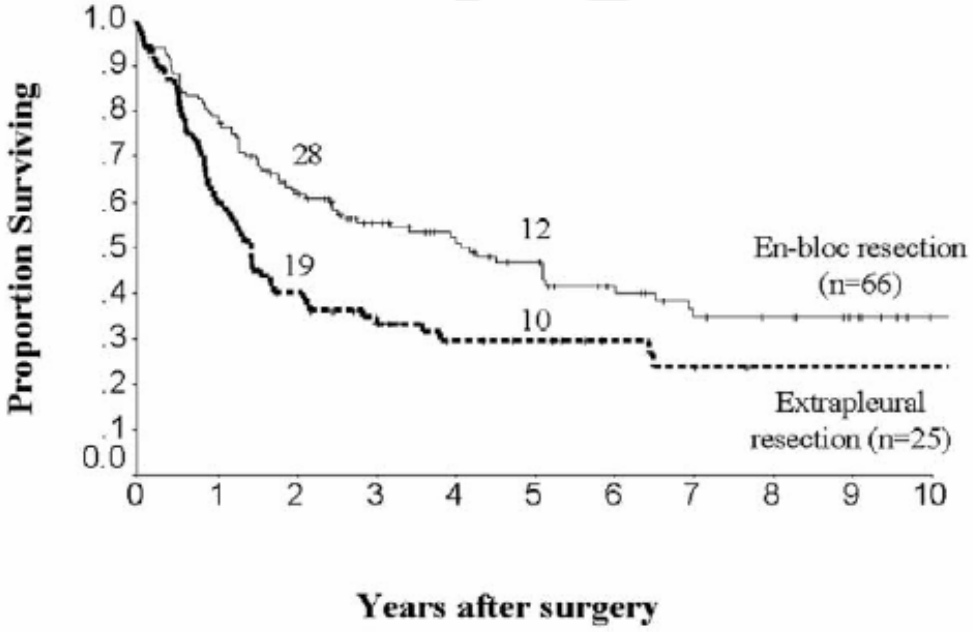


Fig 3. Overall survival according to the type of resection for tumors involving only parietal pleura in stage IIB patients.

Good practices in oncologic Thor. Surg

- Thoracic approches
- Pulmonary resections
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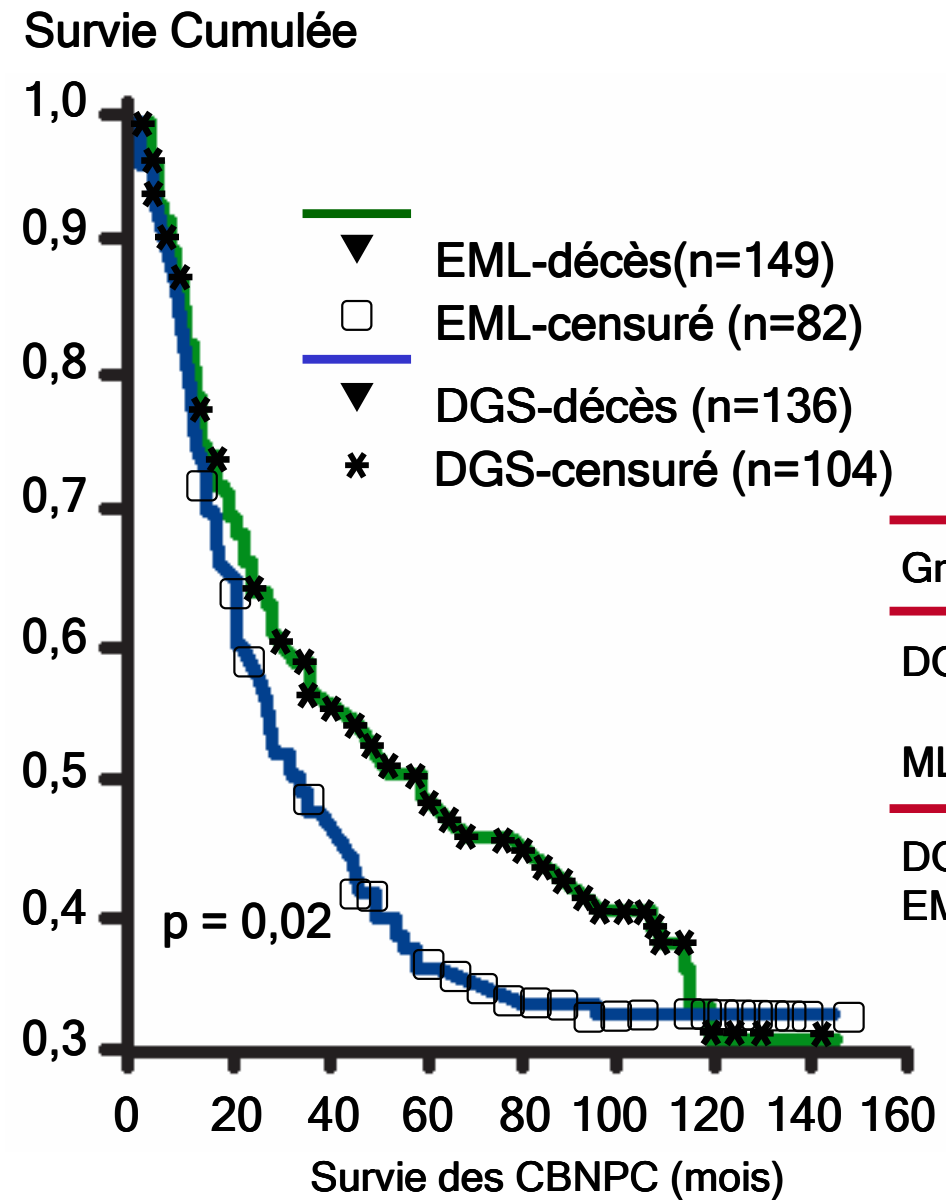
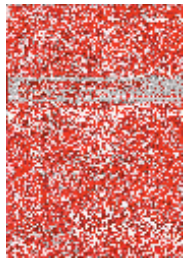
- Extented resections
- **Lymphadenectomy evaluation**

Lynphadenectomy evaluation



Group of trt	N	Recurrences (%)	Metastases (%)
DGS	240	7 (2,9%)	54 (22,5%)
MLS	231	11 (4,8%)	71 (30,7%)

DGS. Dissection ganglionnaire sytématique
EML. Echantillonnage de ganglions lymphatiques médiastinaux



Wu Y. *et al.* Lung Cancer 2002; 36: 1-6

Lymphadenectomy quality criteria

A good extend lymphadenectomy

In minimally 10 lymph nodes resection

In minimally 3 lymph nodes area must be curated

Does the extent of lymph node dissection influence outcome in patients with stage I non-small-cell lung cancer?☆

Christophe Doddoli[a,e,*], Adrian Aragon[a], Fabrice Barlesi[b], Bruno Chetaille[c], Stéphane Robitail[d], Roger Giudicelli[a], Pierre Fuentes[a], Pascal Thomas[a,e]

European Journal of Cardio-thoracic Surgery 27 (2005) 680-685

Technical support

On place :	**Operating room with equipment for conventional and thoracoscopic surgery**
	SSPI
	Standart medical radio equipment
	Endoscopic unit with interventional therapeutic possibility
	Intensive care unit
Easy Acces to :	**Anapath; EFR; ORL; Cardio; CT et RT**
	Imagerie avancée : Scan; IRM; TEP; Scintigraphy
	Tumorothèque

Other quality criteria

* Patient information
* Morbi-mortality staff
* Histological report
* Multidisciplinarity staff report
* Surgical report
* National or international data base

Surgical report

- local situation : the volume and caracteristic of the tumor, the correct topography and the possibility of involvement about mediastinal anatomic structures ,
- is important to prove your resection volume
- listing of area lymph node curated

Assessement Criteria

Après trois années de travail avec les sociétés savantes et les professionnels, les textes (deux décrets et un arrêté) qui visent à mettre en place le régime d'autorisations qui sera applicable aux établissements pratiquant l'activité de soins "traitement du cancer" devraient sortir prochainement, après l'avis favorable unanime rendu jeudi par le conseil d'administration de l'Institut national du cancer (Inca) (cf dépêche APM SLJL7002).

L'un des deux décrets, devant être examiné par le Conseil d'Etat, pose le principe d'activité minimale. Un projet d'arrêté fixe les minima d'activité exigés des établissements autorisés, en chirurgie par spécialité concernée, en radiothérapie et en chimiothérapie.

Pour les cancers thoraciques, seuls 21% des 516 établissements concernés sont au-dessus du seuil (fixé à 30 au lieu de 40) et réalisent 83% de l'activité. Les redéploiements d'activité concerneront donc 79% des établissements qui réalisent quand-même 17% des séjours associés.

*** 104 ES > au seuil et 412 ES < au seuil**

*** Chaque ES au dessous du seuil fait 5,8 actes / an**

* Redéploiement de 17% d'activité: 22 actes par ES / an

Critères d'agrément

* Annonce des critères en dec. 2006
* Décrets et arrêtés sortis au JO du 22 et 29/03/07
* Les ES feront leur appel d'offre pour obtenir leur agrément en 2008
* Les ARH donneront leur autorisation fin 2008

« En donnant une priorité à la lutte contre le cancer, nous ne voulons pas susciter d'espoirs irraisonnés. Le cancer ne sera pas vaincu en un jour, mais un jour il le sera, parce que nous nous engageons et parce que tous les moyens nécessaires seront mis en œuvre avec méthode et détermination »

J.Chirac

Président de la République

Lymphadenectomy evaluation

A good mediastinal lymphadenectomy

In minimally - 10 lymph nodes or more are dissected

- 2 or more ipsilateral lymph node stations must be explored

Does the extent of lymph node dissection influence outcome in patients with stage I non-small-cell lung cancer?*

Christophe Doddoli*,*, Adrian Aragon*, Fabrice Barlesi*, Bruno Chetaille*, Stéphane Robitail*, Roger Giudicelli*, Pierre Fuentes*, Pascal Thomas*,*

European Journal of Cardio-thoracic Surgery 27 (2005) 666–671

Good surgical practices

in broncho-pulmonary primary cancer treatment

These good surgical practices are based on scientific medical proves and not only on intuition or clinic experience

This medicine is called in france "factual medicine" and by anglo saxon "evidence-based medicine"

Scientific Medical Proves Level

Level N°1: High scientific level randomised controlled studies

Level N°2: Low scientific level randomised controlled studies

Level N°3: Prospective studies

Level N°4: Retrospective studies or cases report

Good Surgical Practices in broncho-pulmonary primary cancer treatment

This study is validate by the French Society Thoracic & Cardio-Vascular Surgery

This study include

Surgical thoracic approches

Pulmonary resections

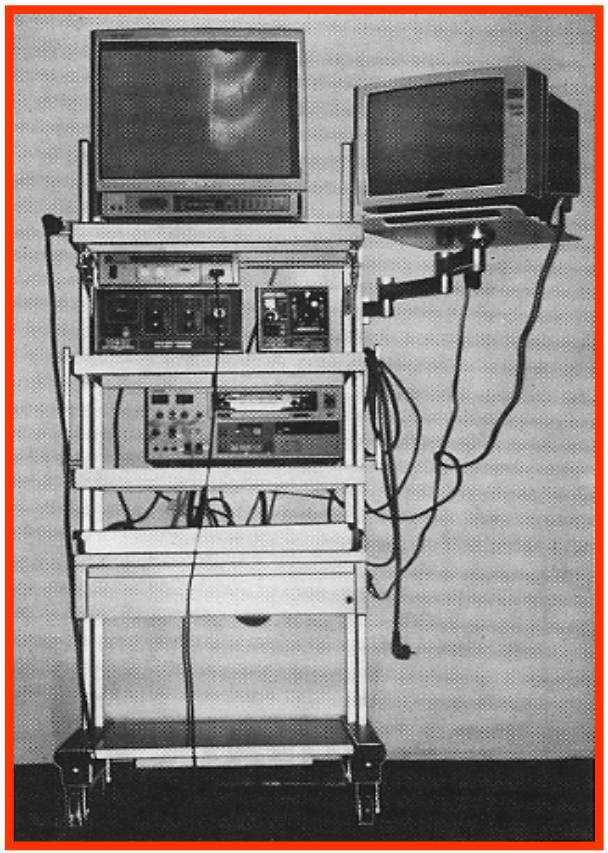
Lymphadenectomy

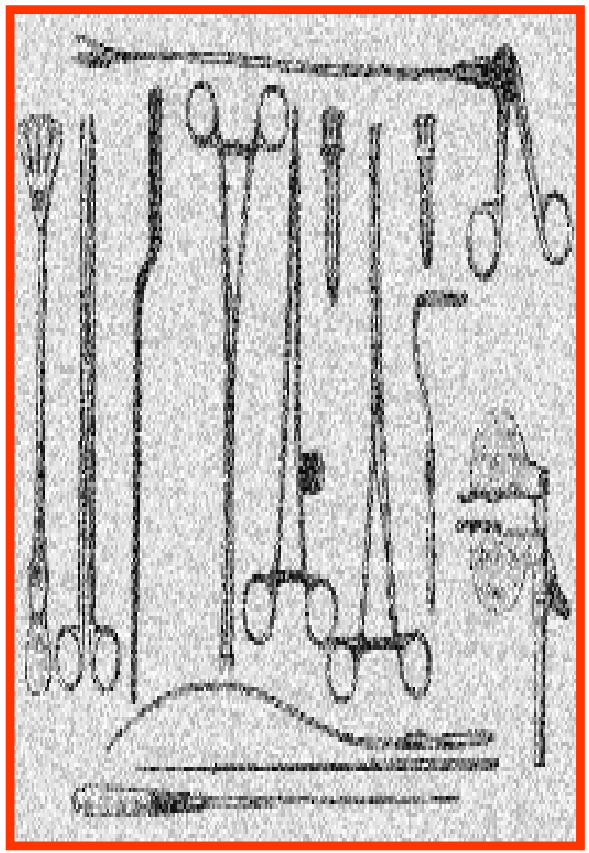
Extended resections

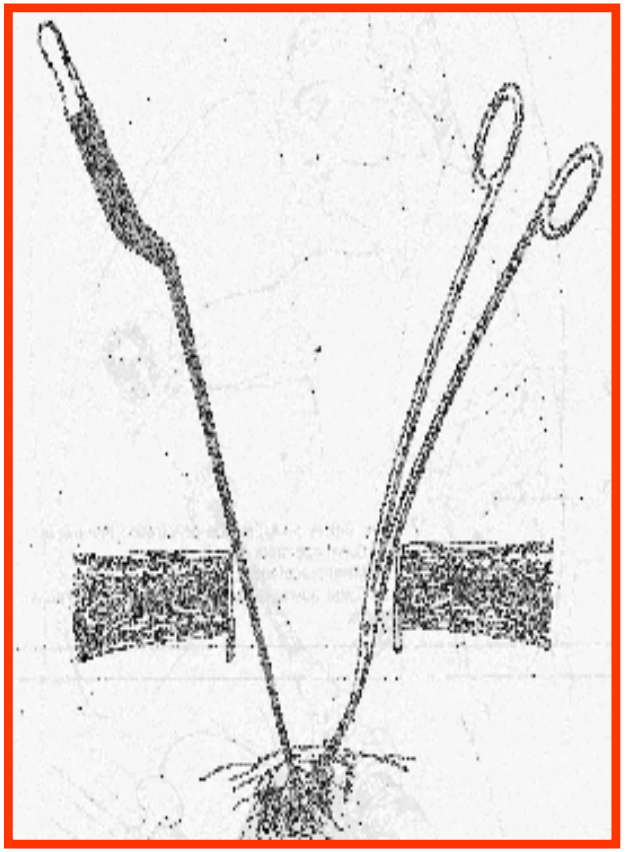
Bronchial suture protection

VATS

Equipment & Surgical Instrumentation







Medical follow up

Follow up is performed

* **By an other thoracic surgeon of the same surgical team**
* **By a surgeon of a different surgical team working in the same hospital**
* **By a surgeon working in an other hospital**