

EXERESES PULMONAIRES STANDARD POUR CANCER (SEGMENTECTOMIES, LOBECTOMIES, PNEUMONECTOMIES)

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CARCINOME BRONCHO-PULMONAIRE NON A PETITES CELLULES

- Survie bien meilleure chez les patients opérables (Tous stades opérables confondus, environ 40-60 %)
- Moins d'un tiers des patients opérables
- Traitements adjuvants : Possible amélioration de la survie à 5 ans de 5-10 %
- Envisager systématiquement la possibilité d'une résection chirurgicale
- Décision collégiale ++

I. BILAN D'OPERABILITE

- **Clinique**

Tabagisme persistant

*Altération de l'état général : - asthénie
- amaigrissement*

Degré *- de dyspnée*

- d'activité quotidienne

Principaux antécédents

Symptômes faisant craindre un risque cardio-vasculaire

Volonté, coopération, état dépressif

- **Fonctionnel respiratoire (chirurgie d'amputation)**

- **Cardiovasculaire (tares associées)**

Body Mass Index and Total Psoas Area Affect Outcomes in Patients Undergoing Pneumonectomy for Cancer



Remi Hervochon, MD, Antonio Bobbio, MD, PhD, Claude Guinet, MD, PhD, Audrey Mansuet-Lupo, MD, PhD, Antoine Rabbat, MD, Jean-François Régnard, MD, Nicolas Roche, MD, PhD, Diane Damotte, MD, PhD, Antonio Iannelli, MD, PhD, and Marco Alifano, MD, PhD

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GENERAL
THORACIC

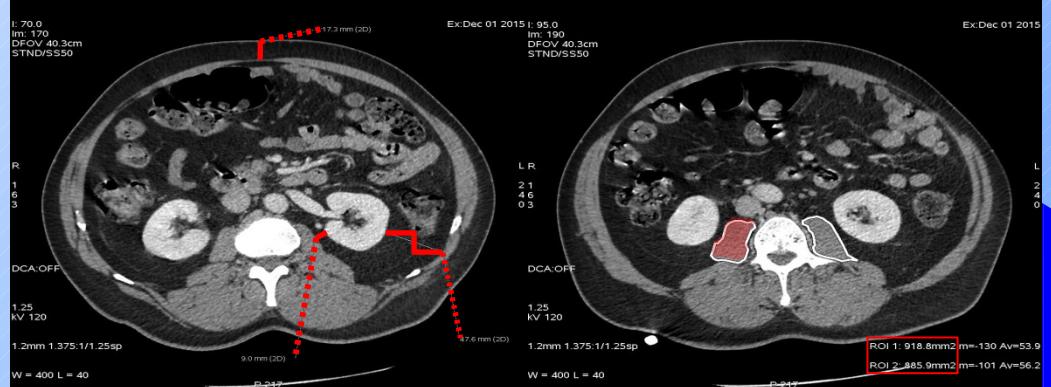
HERVOCHON ET AL 293
BMI AND TOTAL PSOAS AREA IN PNEUMONECTOMY

Table 4. Results of the 3 Cox Models^a

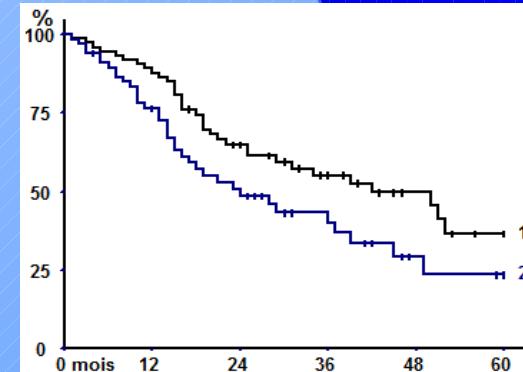
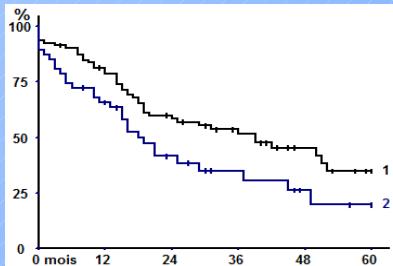
Factor	p Value	RR	95% CI
Model 1			
Histologic type	0.57	1.17	0.68–2.02
Pathologic stage	0.077	1.80	0.94–3.45
BMI	0.014	2.07	1.16–3.70
Total psoas area	0.59	1.17	0.66–2.08
CRP	0.035	1.72	1.04–2.85
Model 2			
Histologic type	0.084	1.49	0.95–2.33
Pathologic stage	0.23	1.38	0.82–2.34
BMI	0.042	1.57	1.02–2.42
Model 3			
Histologic type	0.069	1.52	0.97–2.37
Pathologic stage	0.096	1.55	0.93–2.61
Total psoas area	0.045	1.57	1.01–2.45

^a Model 1 includes (histologic type [squamous cell versus nonsquamous cell], pathologic stage [I–IIA versus IIIB–IV], BMI [$\leq 25 \text{ kg/m}^2$ versus $> 25 \text{ kg/m}^2$], total psoas area [$\leq 33\text{rd percentile}$ versus $> 33\text{rd percentile}$]), and CRP level [$\leq 20 \text{ mg/L}$ versus $> 20 \text{ mg/L}$]). Model 2 includes histologic type, pathologic stage, and BMI. Model 3 includes histologic type, pathologic stage, and total psoas area.

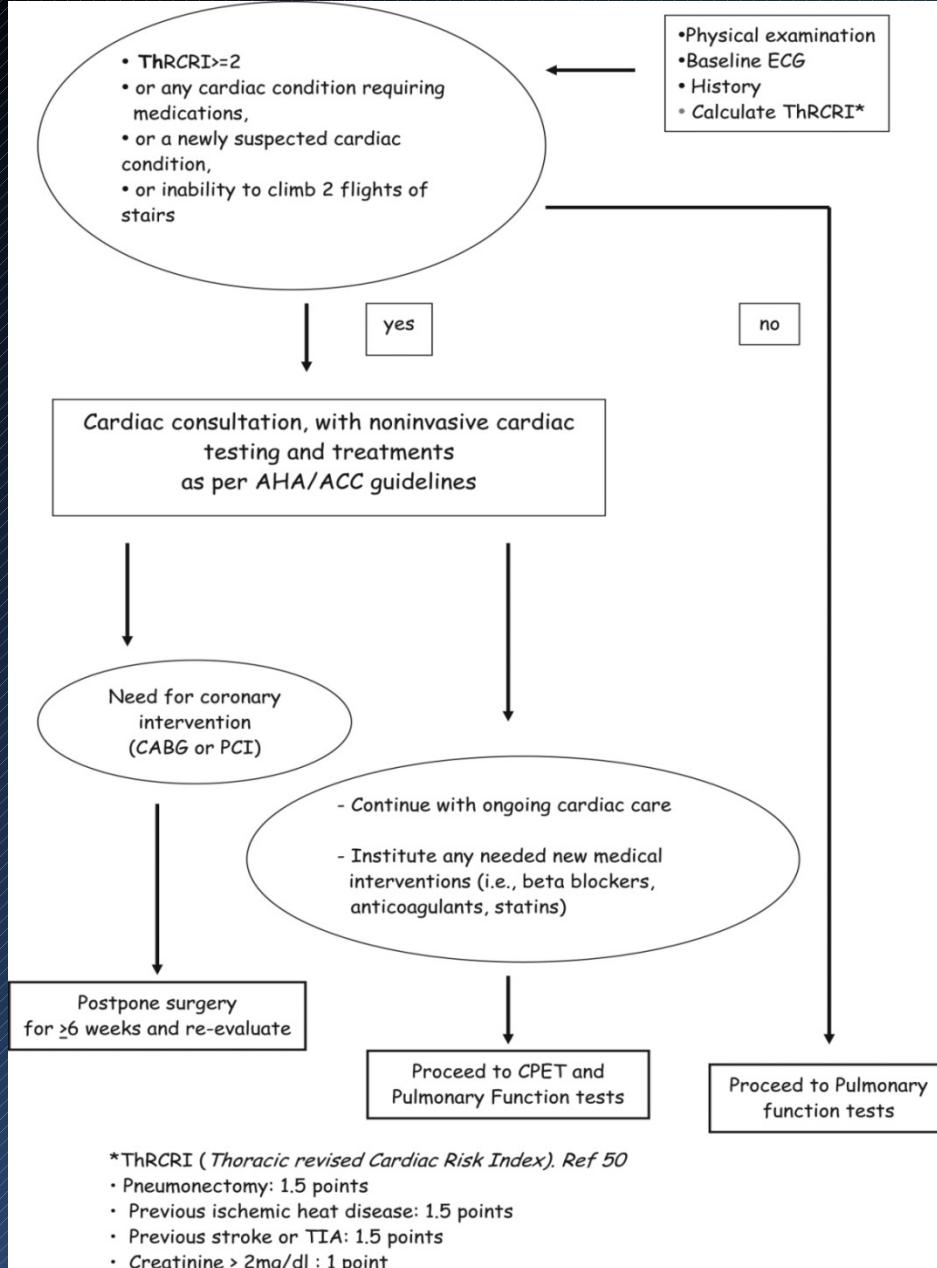
BMI = body mass index; CI = confidence interval; CRP = C-reactive protein; RR = relative risk.



GENERAL
THORACIC



BILAN CARDIOVASCULAIRE



ThRCRI:

Pneumonectomy :
1.5 points;

previous ischemic heart disease :
1.5 points;

previous stroke or transient ischemic attack :
1.5 points;

créatinine > 2 mg/dL : 1 point.

*ThRCRI (Thoracic revised Cardiac Risk Index). Ref 50

- Pneumonectomy: 1.5 points
- Previous ischemic heart disease: 1.5 points
- Previous stroke or TIA: 1.5 points
- Creatinine > 2mg/dl : 1 point

BILAN CARDIOVASCULAIRE



[Intensive Care Medicine](#)

pp 1–3 | [Cite as](#)

Predictors of post-pneumonectomy respiratory failure and ARDS: usefulness of normalized pulmonary artery diameter

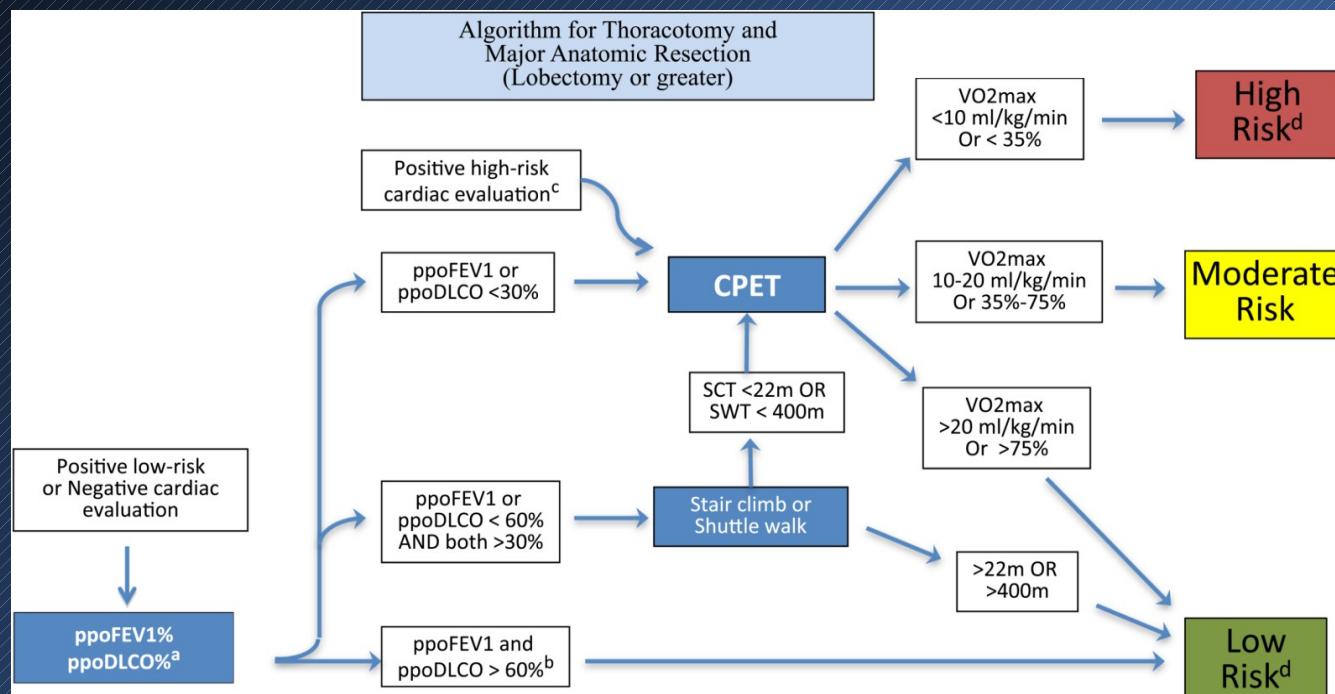
Authors

[Authors and affiliations](#)

Marine Peretti, Remi Hervochon, Mauro Loi, Kim Blanc, Nicolas Roche, Marco Alifano

From: Physiologic Evaluation of the Patient With Lung Cancer Being Considered for Resectional Surgery: Diagnosis and Management of Lung Cancer, 3rd ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines

Chest. 2013;143(5_suppl):e166S-e190S. doi:10.1378/chest.12-2395



Actual Risks affected by parameters defined here and:
 • Patient Factors: Comorbidities, age
 • Structural Aspects: center (volume, specialization)
 • Process factors: Management of complications
 • Surgical access: Thoracotomy vs. minimally invasive



LIMITES FONCTIONNELLES RESPIRATOIRES DES EXERESES

Fonction de l'exérèse envisagée (Lobe / poumon)
de la valeur fonctionnelle du poumon opéré
de l'IMC du patient

Schématiquement

- Résection segmentaire : pratiquement pas de contre-indication, si patient « fit »
- Lobectomie ou pneumonectomie : interventions « lourdes » : importance des facteurs de risque associés



décision toujours difficile : services spécialisés

From: Treatment of Stage I and II Non-small Cell Lung Cancer: Diagnosis and Management of Lung Cancer, 3rd ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines

Chest. 2013;143(5_suppl):e278S-e313S. doi:10.1378/chest.12-2359

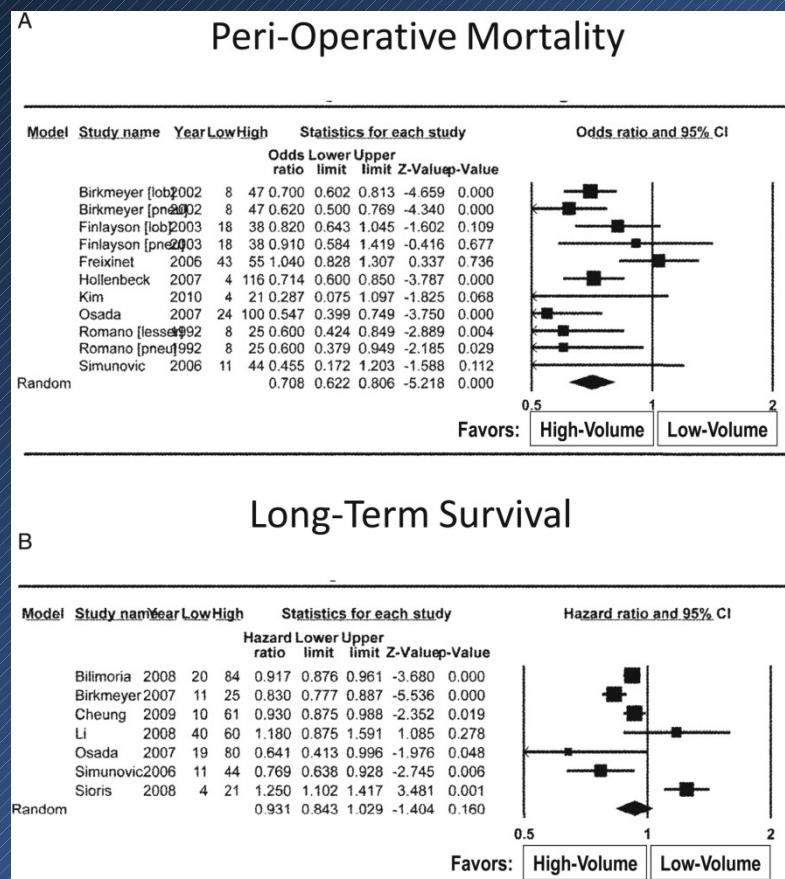


Figure Legend:

[Section 2.2.2] Meta-analysis of relationship between outcomes and hospital case volume of lung cancer resections. A, Perioperative mortality. B, Long-term survival. Higher limit = lowest annual volume in the high-volume category; lower limit = highest annual volume in the lower limit category. (Reproduced with permission from von Meyenfeldt et al.12)

RISQUE OPERATOIRE ET PRINCIPALES COMPLICATIONS POST OPERATOIRES

Fonction du terrain et du type d'exérèse

- Facteurs de risque :
 - insuffisance respiratoire, malnutrition/obésité morbide
 - chimiothérapie (?) et surtout radiothérapie pré opératoire
 - tares associées
 - colonisation bactérienne bronchique
 - âge ?
- Principales complications :
 - surinfections bronchiques, pneumopathies
 - empyème et fistule bronchique (pneumonectomie)
 - trouble du rythme, embolie pulmonaire
- Incidence :

- complications infectieuses	20 %
- fistule, empyème	1 % (lobectomie)
	6 % (pneumonectomie)
- mortalité post opératoire	2,5 % (lobectomie)
	6 % (pneumonectomie)

National perioperative outcomes of pulmonary lobectomy for cancer: the influence of nutritional status[†]

Pascal Alexandre Thomas^{a,*}, Julie Berbis^b, Pierre-Emmanuel Falcoz^c, Françoise Le Pimpec-Barthes^d, Alain Bernard^e, Jacques Jougon^f, Henri Porte^g, Marco Alifano^h and Marcel Dahanⁱ on behalf of the EPITHOR Group

Operative death		<i>P*</i>	OR a	95% CI
Yes (<i>N</i> = 490)	No (<i>N</i> = 19 145)			
BMI, <i>N</i> (%)				
Normal	249 (2.7)	9142 (97.3)	0.002	1
Underweight	35 (4.1)	822 (95.9)		1.89 [1.30–p2.75]
Overweight	156 (2.3)	6565 (97.7)		0.72 [0.59–0.89]
Obesity	50 (1.9)	2616 (98.1)		0.54 [0.40–0.74]



II. BILAN D'EXTENSION = STAGING = CLEF DE LA DECISION THERAPEUTIQUE

- Clinique
- Fibroscopie bronchique
- Scanner thoracique + Abdomen Sup
- IRM crâne
- TEP scanner

INDICATIONS OPERATOIRES (1)

- Cancer non métastatique (quelques exceptions)
- Résection complète possible : tumeur, ganglions ± structures adjacentes envahies
- Fonction respiratoire compatible avec l'étendue de l'exérèse envisagée
- Risque opératoire « acceptable » et accepté du patient
- Les extensions par contiguïté (paroi thoracique, VCS, partie basse de la trachée) ne sont pas des contre-indications opératoires et doivent être distinguées des extensions métastatiques



décision collégiale pour définir la meilleure stratégie

INDICATIONS OPERATOIRES (2)

Stades I et II	Tumeur limitée au poumon (\pm paroi)	Chirurgie (\pm chimiothérapie)
Stade III_A	T3N1 / Atteinte ganglionnaire médiastinale (N ₂)	Chirurgie plus chimiothérapie ou chimiothérapie plus chirurgie (N2) (+++) RT-ChT
Stade III_B	Atteinte médiastinale <u>sauf si</u> atteinte limitée (carène VCS, OG) 	RT-ChT Résection chirurgicale
Stade IV	Métastatique <u>sauf si</u> métastase unique résécable	Chimiothérapie \pm radiothérapie palliative Double résection chirurgicale + chimiothérapie

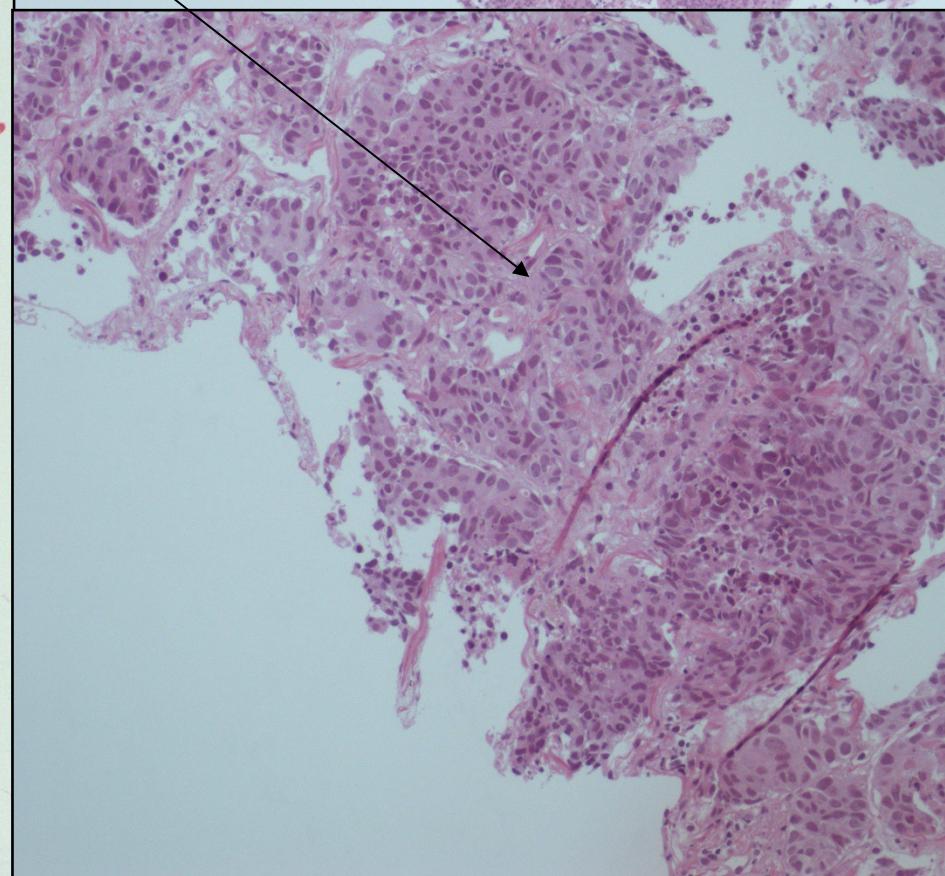
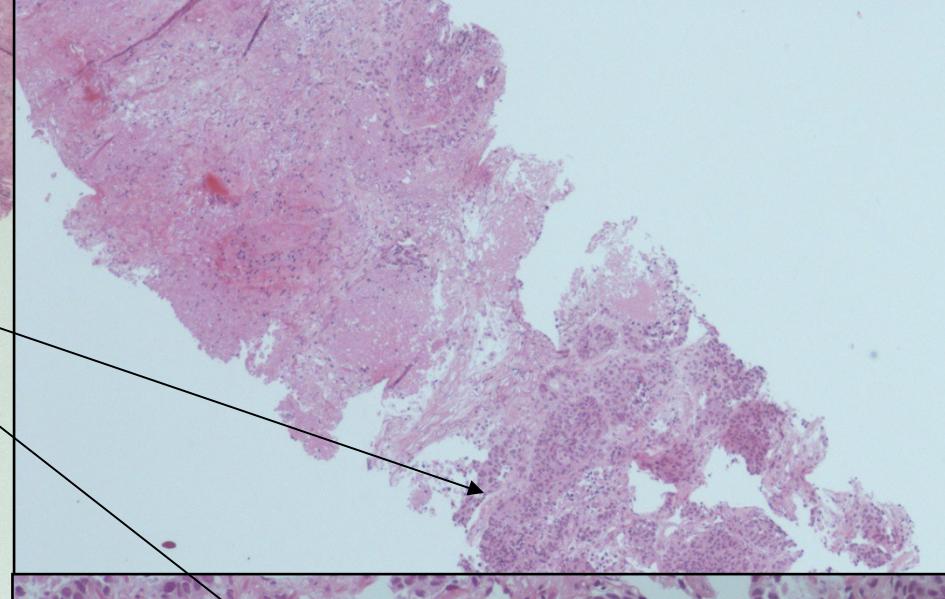
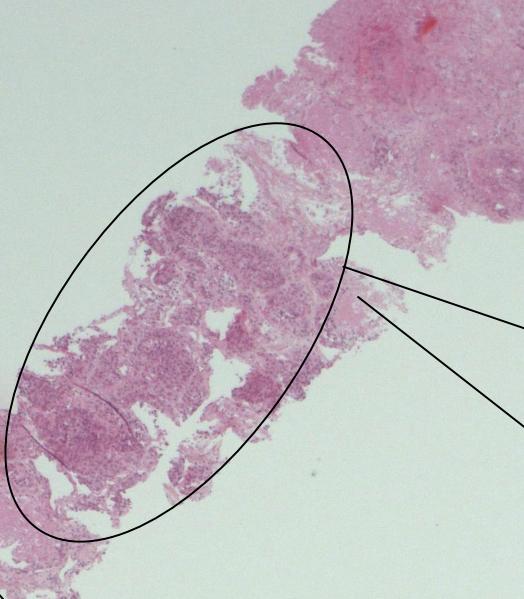
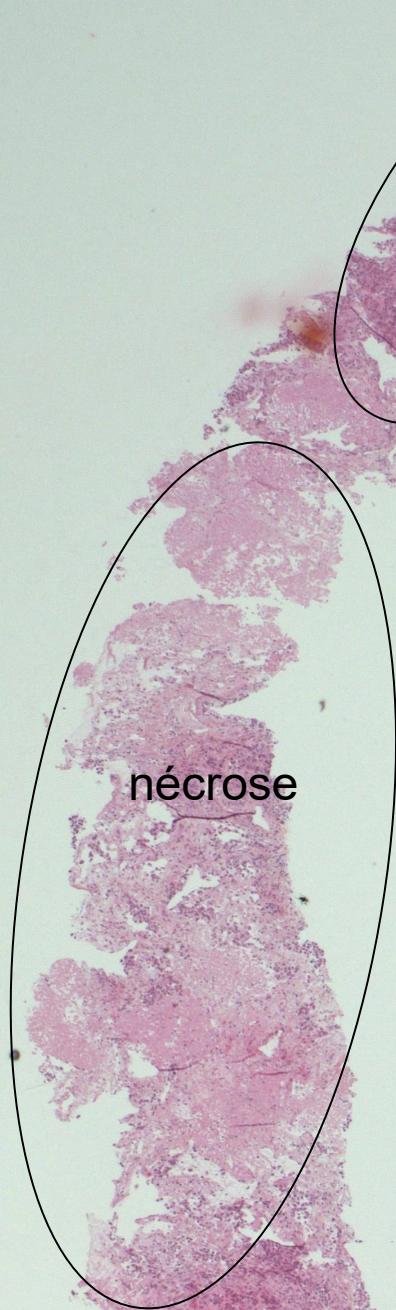
EBUS

- Staging du cancer pulmonaire:

Lee et al J Thorac Cardiovasc Surg 2012;143:585-90.

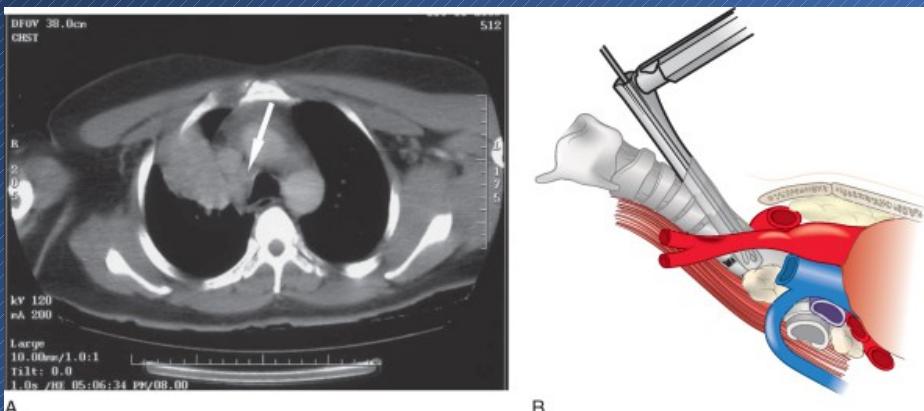
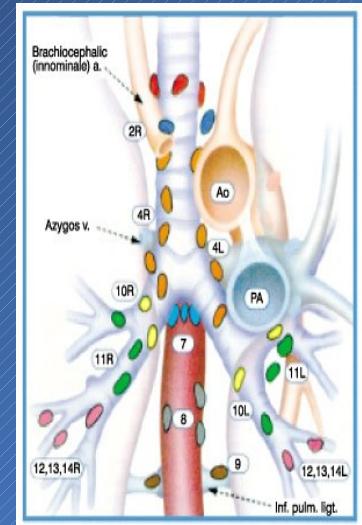
Etude rétrospective de database prospective sur 73 patients ayant reçu un EBUS

Sensitivité	95 %
Spécificité	100 %
VPN	94 %
Exactitude	97 %



Médiastinoscopie

- Technique conventionnelle (Carlens 1959)
- Technique vidéo assistée (Dahan-Linder)
 - Sécurité possiblement meilleure (?)
 - Aide à la didactique
 - Sensible et spécifique
 - Dissection bi-instrumentale

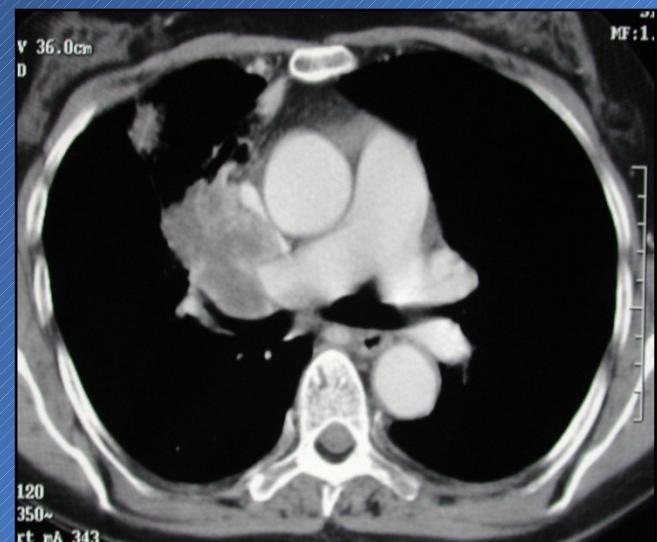
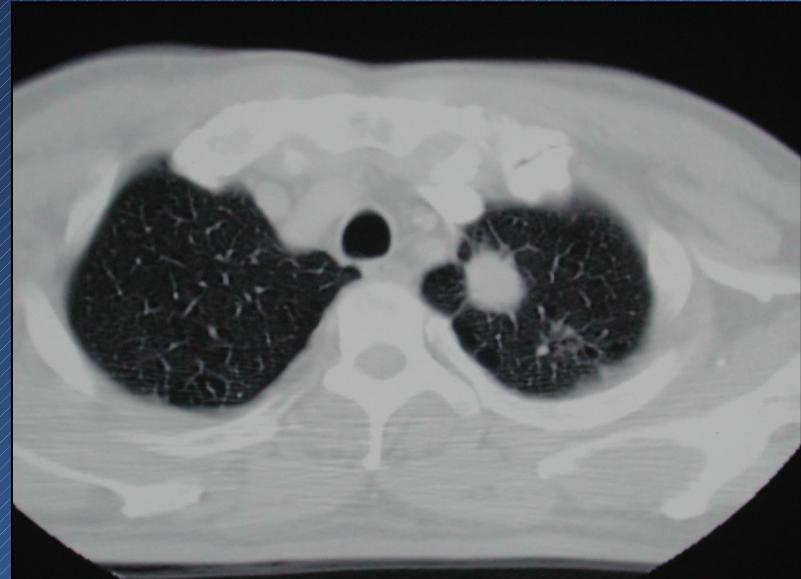


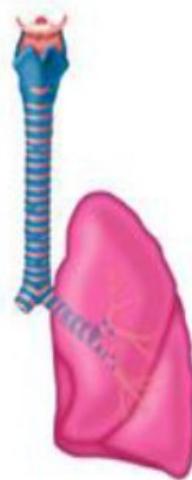
Video-assisted mediastinoscopy: experience from 240 consecutive cases.
Venissac N, Alifano M, and Mouroux J. Ann thorac Surg 2003;76:208-12

DECISION D'OPERABILITE (locorégionale)

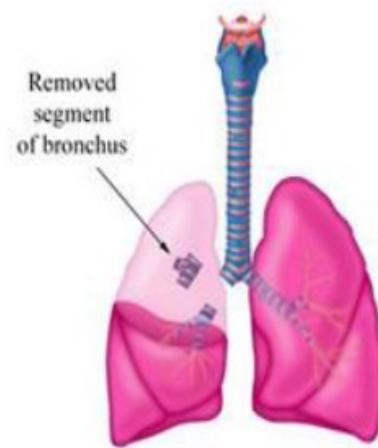
→ Scanner thoracique avec injection :

- Caractéristiques de la tumeur
- Rapport avec le pédicule pulmonaire et le médiastin
- Ganglions du médiastin
- Poumon homo et controlatéral
- Epanchement pleural
- Rapport avec les scissures

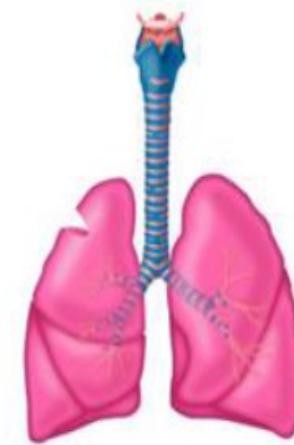




pneumonectomy



sleeve lobectomy



wedge resection



lobectomy



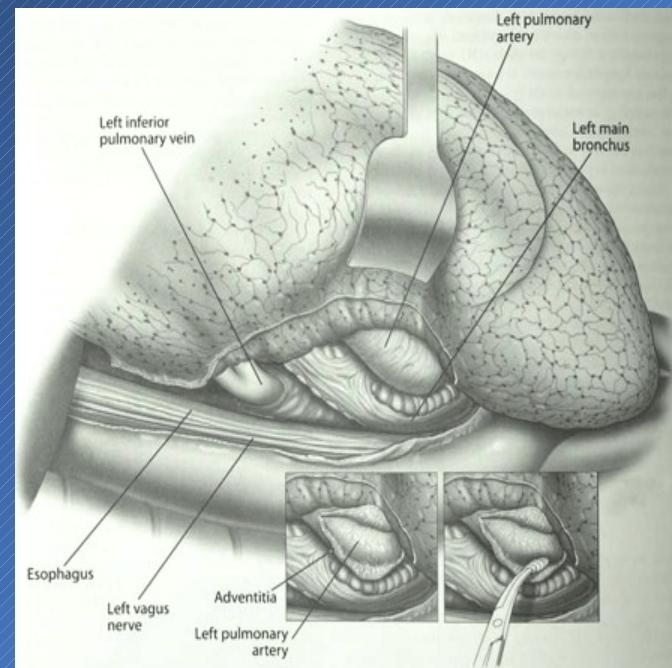
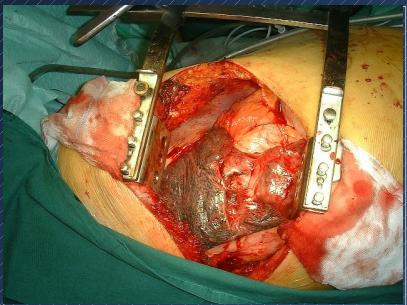
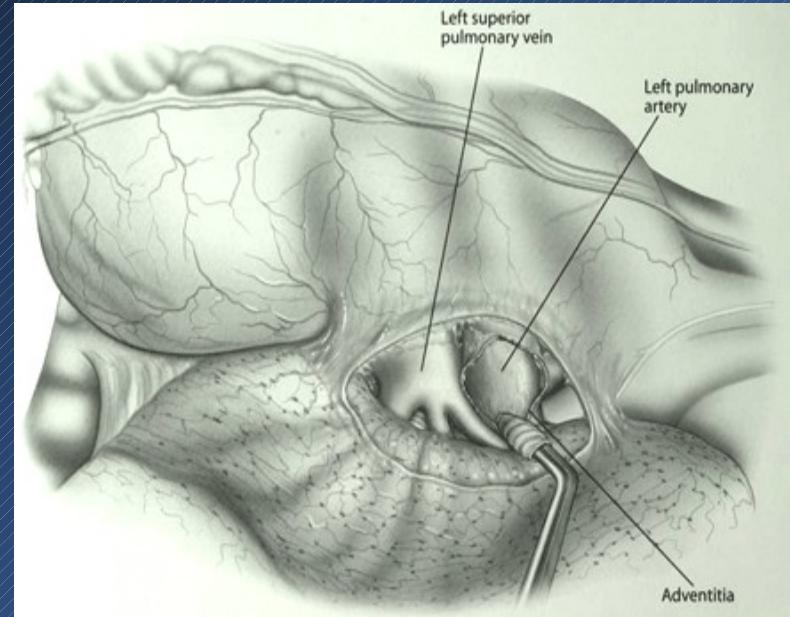
segmentectomy

CHOIX DE L'EXERESE

- Lobectomie = gold standard : intervention de principe
- Pneumonectomie : uniquement de nécessité
 - atteinte de la bronche principale
 - franchissement scissural
 - atteinte hilaire
- Résection segmentaire également de nécessité
 - insuffisance respiratoire sévère ($T < 3$ cm)
 - poumon unique
 - Tumeurs multiples
 - OVD
 - $T < 2\text{cm?}$

4.10 ACCP Recommendation

4.10.1. In patients with major increased risk of perioperative mortality or competing causes of death (due to age related or other co-morbidities), an anatomic sublobar resection (segmentectomy) over a lobectomy is suggested (Grade 2C).



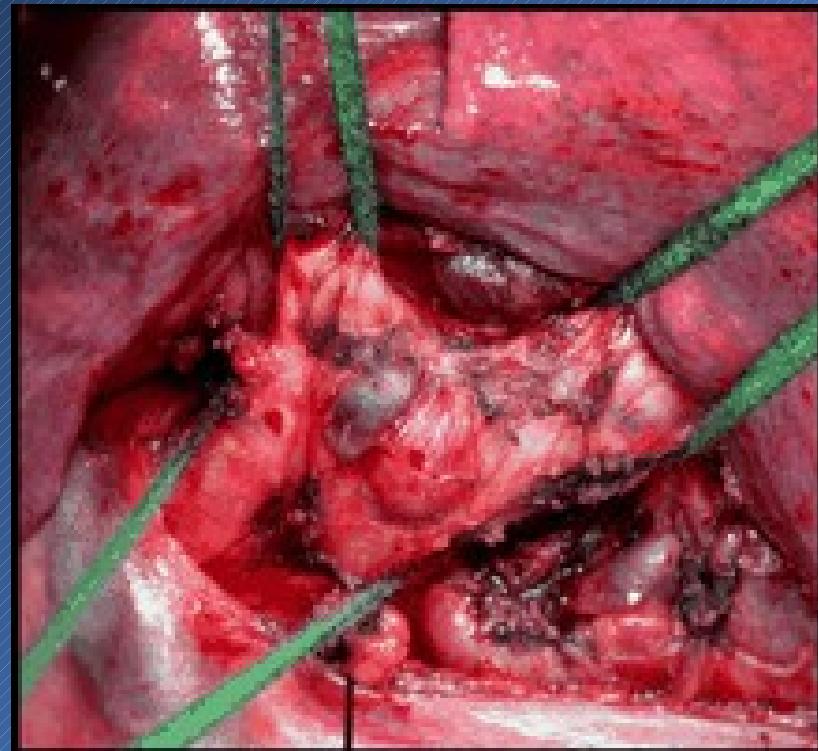
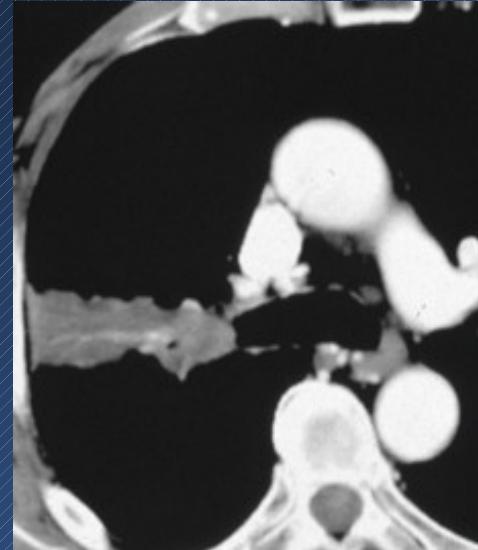
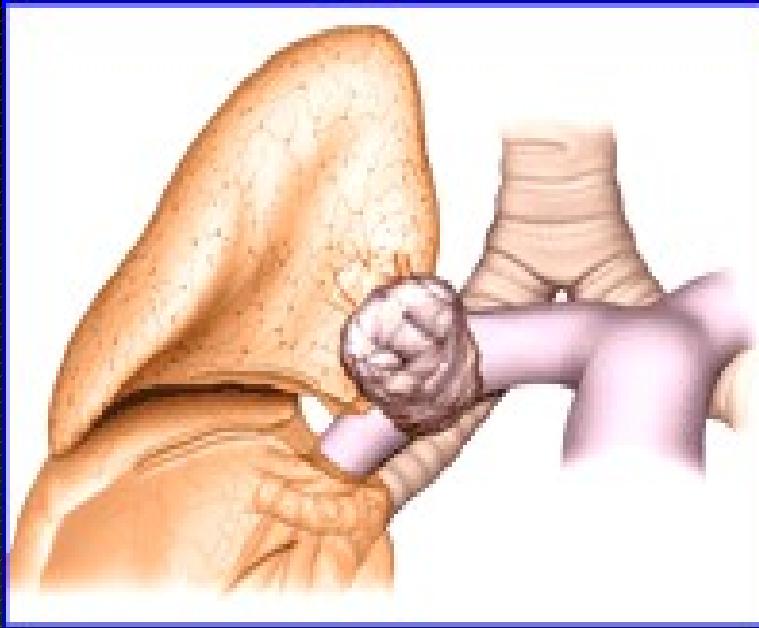
	FOREseal	Control	Global	P
Air leak 1 h after extubation				0.4594
No	84 (46.93%)	90 (50.85%)	174 (48.88%)	
Yes	95 (53.07%)	87 (49.15%)	182 (51.12%)	
Air leak duration, d	1.00 [0.00; 2.00]	1.00 [0.00; 3.00]	1.00 [0.00; 3.00]	0.8357
Prolonged air leak (>5 d)				0.4021
No	159 (88.83%)	152 (85.88%)	311 (87.36%)	
Yes	20 (11.17%)	25 (14.12%)	45 (12.64%)	
Prolonged air leak (>7 d)				0.2642
No	165 (92.18%)	157 (88.70%)	322 (90.45%)	
Yes	14 (7.82%)	20 (11.30%)	34 (9.55%)	
Chest drainage duration, d	4.00 [3.00; 6.00]	4.00 [3.00; 7.00]	4.00 [3.00; 6.00]	0.1074
Re-do surgery or re-do drainage				0.1193
No	174 (97.21%)	166 (93.79%)	340 (95.51%)	
Yes	5 (2.79%)	11 (6.21%)	16 (4.49%)	
Re-do surgery				0.6433
No	177 (98.88%)	174 (98.31%)	351 (98.60%)	
Yes	2 (1.12%)	3 (1.69%)	5 (1.40%)	
Re-do drainage				0.2661
No	174 (97.21%)	168 (94.92%)	342 (96.07%)	
Yes	5 (2.79%)	9 (5.08%)	14 (3.93%)	
Hospital stay, d	9.00 [7.00; 12.00]	9.00 [8.00; 13.00]	9.00 [7.00; 13.00]	0.8806
Pneumothorax at chest drain removal				0.0462
No	167 (93.30%)	154 (87.01%)	321 (90.17%)	
Yes	12 (6.70%)	23 (12.99%)	35 (9.83%)	
Postoperative mortality				0.9829
No	172 (96.09%)	170 (96.05%)	342 (96.07%)	
Yes	7 (3.91%)	7 (3.95%)	14 (3.93%)	
At least one postoperative complication				0.4605
No	97 (54.19%)	89 (50.28%)	186 (52.25%)	
Yes	82 (45.81%)	88 (49.72%)	170 (47.75%)	

**Medical and Economic Evaluation of FOREseal Bioabsorbable Reinforcement Sleeves
Compared With Current Standard of Care for Reducing Air Leakage Duration After Lung
Resection for Malignancy: A Randomized Trial.**

Alifano et al, Annals of Surgery. 265(1):45-53, January 2017.

LOBECTOMIES AVEC RESECTION-ANASTOMOSE

- Atteinte de l'origine de la bronche lobaire ou de l'éperon
- Lobectomie simple impossible
- Possibilité d'élargissement au carrefour lobaire (bronchique et/ou vasculaire), surtout en cas de lobectomie supérieure :
 - résection de la partie terminale de la bronche souche
 - résection de la partie initiale du tronc intermédiaire (ou de la bronche lobaire inférieure G.)
 - réimplantation du bilobe (ou du LIG)



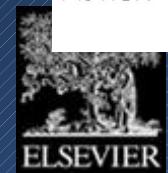
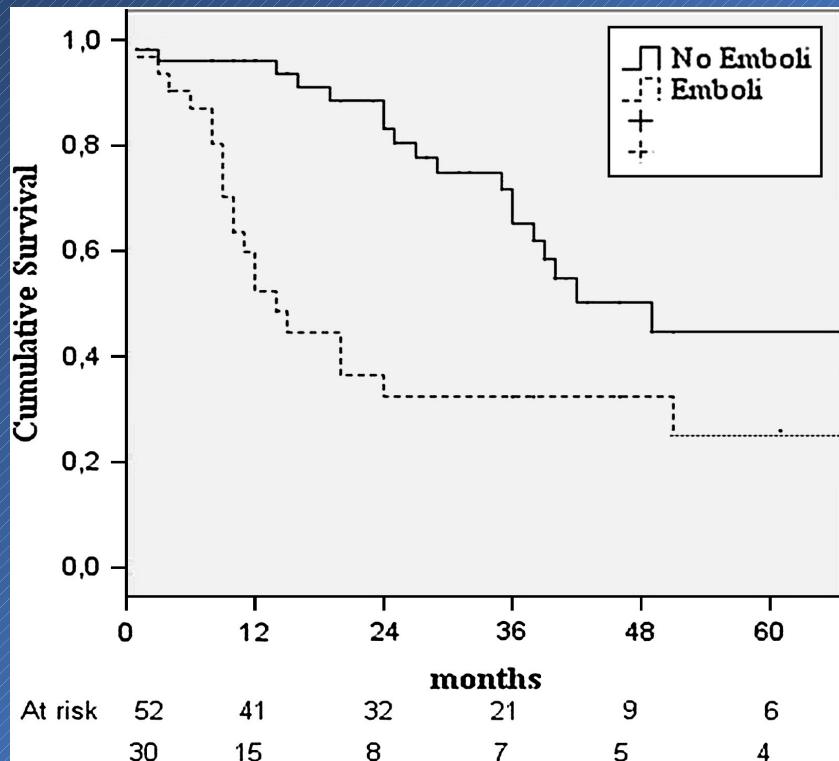
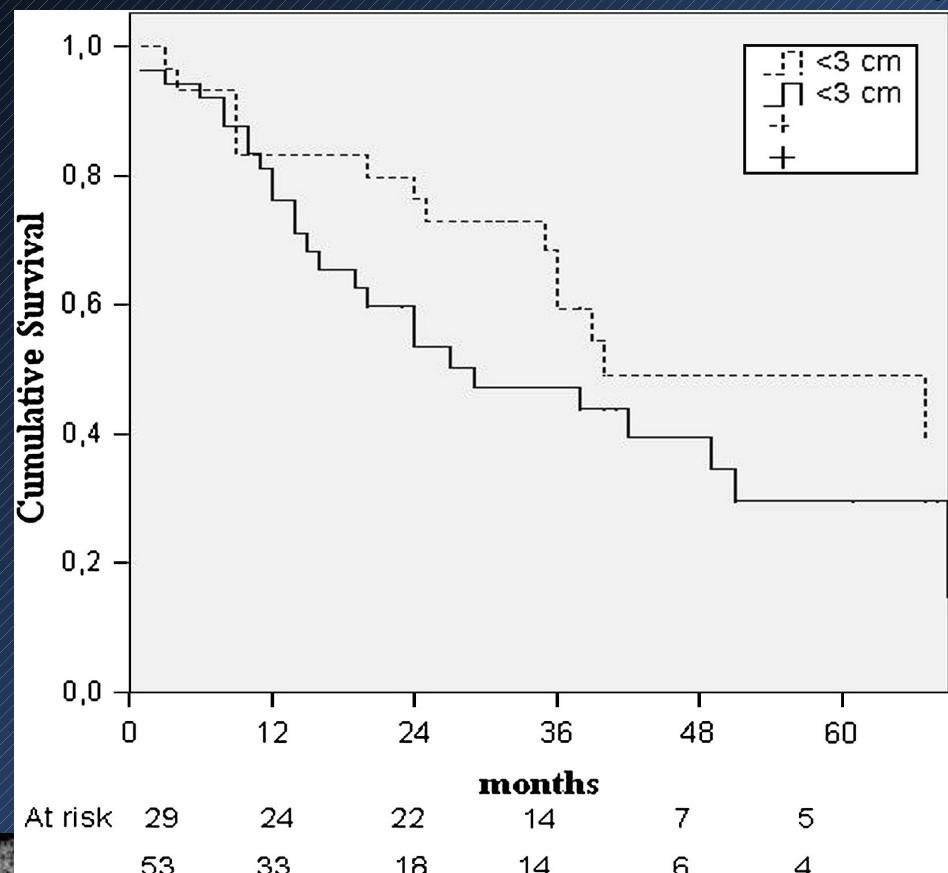
Lobectomy with pulmonary artery resection: Morbidity, mortality, and long-term survival

Marco Alifano, MD, Giacomo Cusumano, MD, Salvatore Strano, MD, Pierre Magdeleinat, MD, Antonio Bobbio, MD, Frederique Giraud, MD, Bernard Lebeau, MD, Jean-François Régnard, MD

The Journal of Thoracic and Cardiovascular Surgery

Volume 137, Issue 6, Pages 1400-1405

DOI: 10.1016/j.jtcvs.2008.11.002



Period : 01/2004 → 05/2012

293 M ; 105 W; $61,0 \pm 10,9$ years
Tobacco 84,5%, 40 P/Y (20-50)

History extrathor cancer: 13,7%
Significant comorbidities: 85,0%

Which is the Role of Pneumonectomy in the Era of Parenchymal-Sparing Procedures? Early/Long-Term Survival and Functional Results of a Single-Center Experience

Aurélie Janet-Vendroux¹ · Mauro Loi¹ · Antonio Bobbio¹ · Filippo Lococo² ·
Audrey Lupo³ · Pauline Ledinot¹ · Pierre Magdeleinat¹ · Nicolas Roche⁴ ·
Diane Damotte³ · Jean-François Regnard¹ · Marco Alifano¹

Indications à la pneumonectomie :

NSCLC	n=350
Other malign	n=30
Benign disease	n=6
« Salvage »	n=12

INDUCTION 37%

Chemotherapy 33% ; 3 cycles (2-5)

Radiotherapy n=2

NSCLC : c staging

T1	6%
T2	47%
T3	36%
T4	11%
N0	45%
N1	21%
N2	33%
N3	1%



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Right 44%, Left 56%
Tracheal Sleeve : 7%

14 fistulas (3,5%)
15 empyema without fistula (3,7%)

- Operative mortality (D30) 9% → 12,6% Right vs 6,3% Left ($p=0.032$)
- For NSCLC 8,6% → 12,8% Right vs 5,3% Left ($p=0.013$)

Post-chemotherapy: 7,21% vs 9,4% ($p=0.51$)

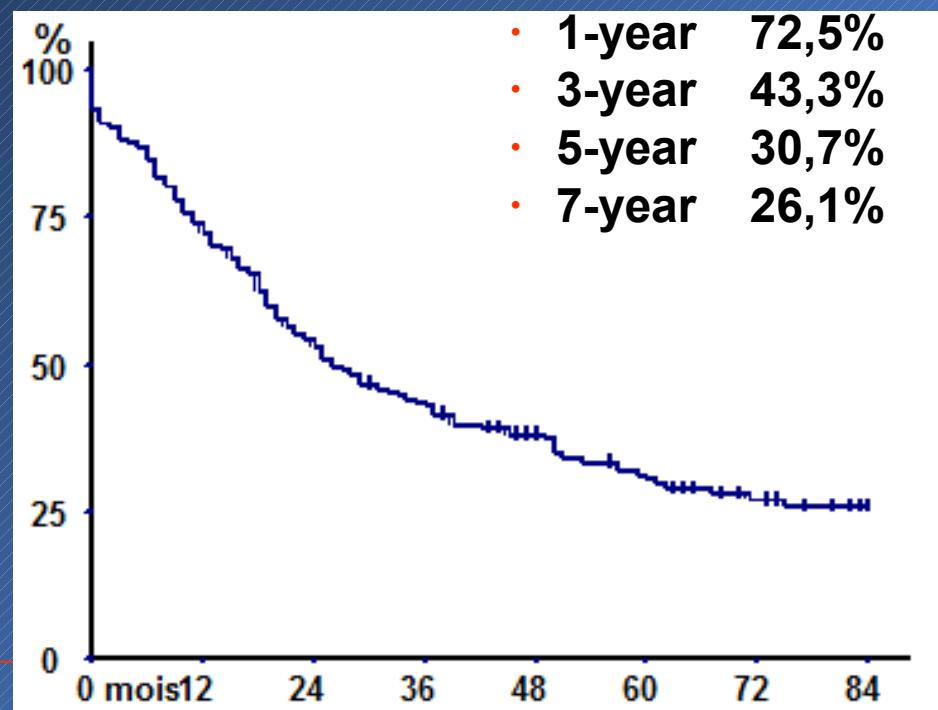
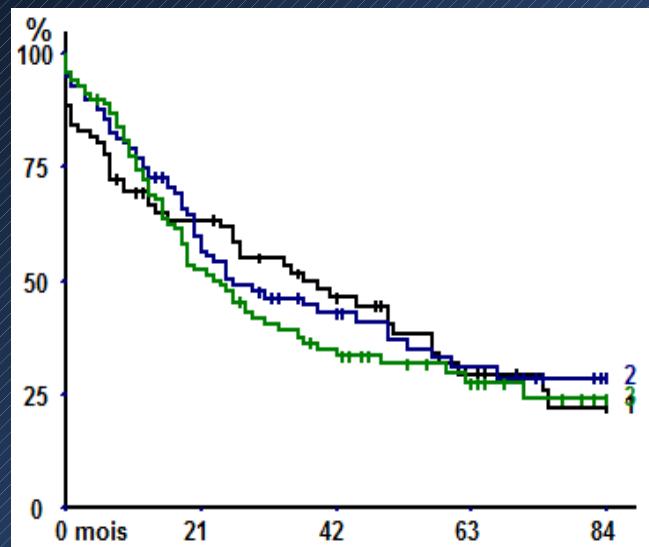
- Postoperative mortality associated with:
age; PS>1 ; pre-operative dyspnea ; comorbidities ; FEV1< 80%
- Mortality (D90) 12,4%



Which is the Role of Pneumonectomy in the Era of Parenchymal-Sparing Procedures? Early/Long-Term Survival and Functional Results of a Single-Center Experience

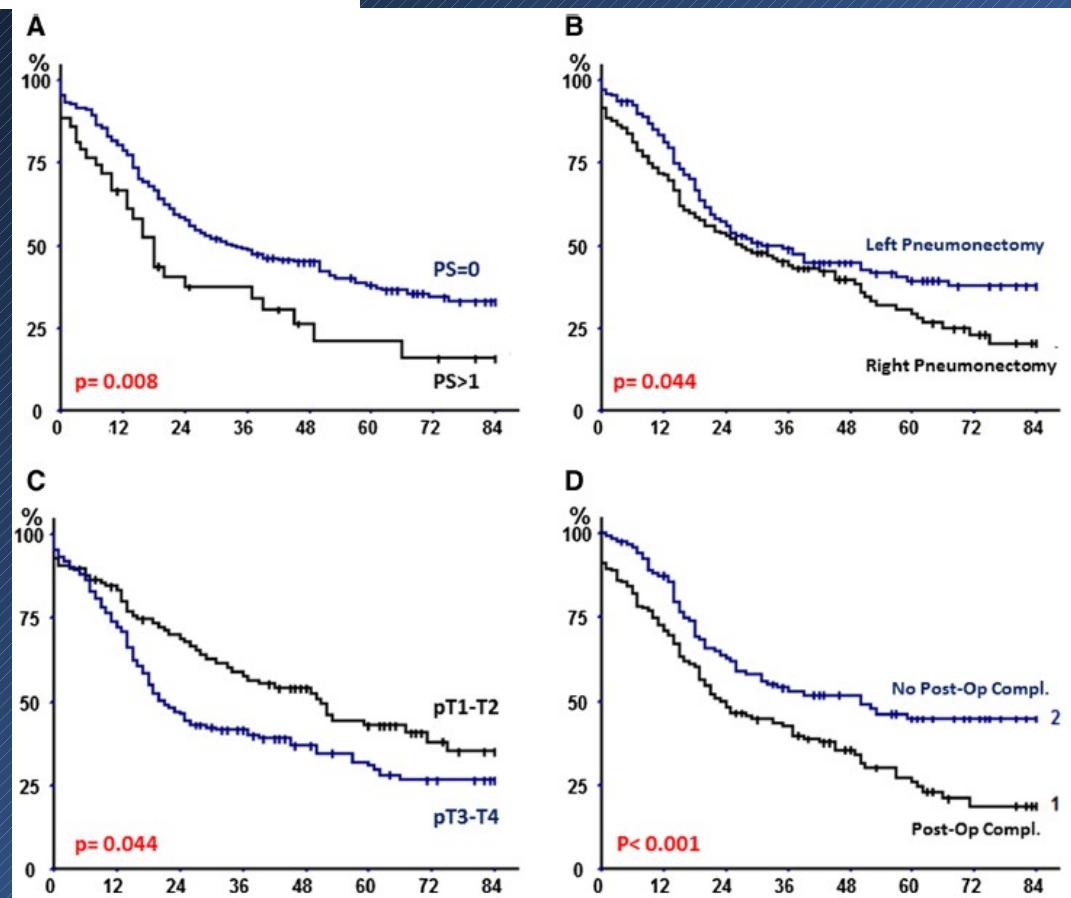
Aurélie Janet-Vendroux¹ · Mauro Loi¹ · Antonio Bobbio¹ · Filippo Lococo² ·
Audrey Lupo³ · Pauline Ledinot¹ · Pierre Magdeleinat¹ · Nicolas Roche⁴ ·
Diane Damotte³ · Jean-François Regnard¹ · Marco Alifano¹

- Adenocarcinomas 31%
- Squamous 51%
- Large cell 12%
- Other 6%



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Diane Damotte³ · Jean-François Regnard¹ · Marco Alifano¹



Multivariate : PS<1 (RR 1,59) ; Right (RR 1,34) ; post-op Complications (RR 1,55)



Pneumonectomy After Chemotherapy: Morbidity, Mortality, and Long-Term Outcome

Marco Alifano, MD, Mohamed S. Boudaya, MD, Maurizio Salvi, MD,
 Jean-Yves Collet, MD, Carmen Dinu, MD, Sophie Camilleri-Broët, MD, and
 Jean-François Régnard, MD

Departments of Thoracic Surgery and Pathology, Hôtel Dieu Hospital, AP-HP, JE2492 Institut National de la Santé et de Recherche Médicale (INSERM), University Paris-Sud, and Faculty of Medicine Paris-Descartes, Paris, France

Ann Thorac Surg
 2008;86:1866–73

ALIFANO ET AL 1869
 PNEUMONECTOMY AFTER CHEMOTHERAPY

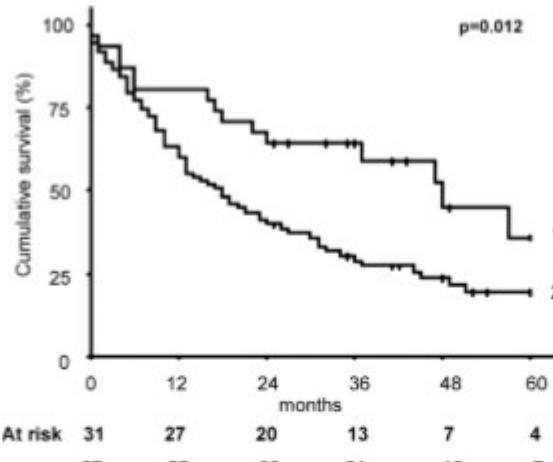


Fig 3. Patient survival according to the pathologic stages I and II (line 1) vs III and IV (line 2); $p = 0.01$.

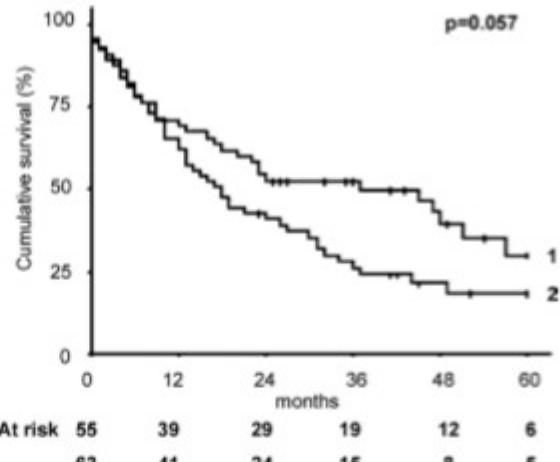


Fig 5. Survival according to the N variable N0 and N1 (line 1) vs N2 (line 2); $p = 0.057$.

At multivariate analysis, T status ($p = 0.0054$), the occurrence of postoperative complications ($p = 0.0015$), and clinical response to induction chemotherapy ($p = 0.028$) were independent predictors of 5-year survival.

Among the 37 surviving patients, possible dyspnea could be graded in 30 patients according to the New York Heart Association (NYHA) functional class: scores were 0, I, II, III, and IV in 13, 12, 3, and 2 patients, respectively.

Pneumonectomy for lung cancer: contemporary national early morbidity and mortality outcomes

Epithor Database 2003-2013, 4498 patients

- Complications:

Surgical	14,9%
Cardiovascular	14,1%
Pulmonary	11,5%
Infectious	2,7%

- Operative mortality 7,8% : Associated to :

Age >65 ans	OR 2.1	p<0.01
ASA ≥3	OR 2.3	p<0.01
Extended resection	OR 1.5	p=0.018
BMI<18	OR 2.2	p=0.009
Protective effect :		
Overweight	OR 0.63	p=0.033
Induction	OR 0.63	p=0.005

JUSTIFICATION DES SEGMENTECTOMIES

- Préserver la fonction respiratoire
- Faciliter d'éventuelles réinterventions en cas de nouveau cancer

En fait : - bénéfice fonctionnel limité par rapport à une lobectomie
en revanche
- réintervention plus souvent possible
(3ème cancer)

Contraintes importantes
→ nombreux examens extemporanés
→ techniquement = pas toujours possible

SEER Database: *Comparison of Segmentectomy and Lobectomy in Stage IA Adenocarcinomas*

Zahao et al, JTO, sous press doi: 10.1016/j.jtho.2017.01.012.

- 7989 patients
- Propensity scores generated from logistic regression on preoperative characteristics
- 564 segmentectomies
- Better overall and lung cancer-specific survival in lobectomy than segmentectomy for the entire cohort (log-rank p < 0.01)
- After propensity score matching, (segmentectomy, n = 552) no significant difference in
 - overall (5-year survival = 74.45% versus 76.67%, HR 1,09)
 - lung cancer-specific survival (5-year survival = 83.89% versus 86.11%, HR 1,12)

(adjustment for age, sex, lymph node quantity, and histological subtype OR sex, age, histological subtype, and number of evaluated lymph nodes)



JUSTIFICATION DES EXERESES ANATOMIQUES: EMBOLES

En vertu de sa possible valeur pronostique la présence d'emboles vasculaires a été proposée comme :

- 1) Paramètre supplémentaire de la classification TNM.

Chest 2007; 132: 170-7.

- 2) Critère d'assignation à une chimothérapie adjuvante.

JTCVS 2009; 137:429-34.

Upstaging by Vessel Invasion Improves the Pathology Staging System of Non-Small Cell Lung Cancer*

Tomoshi Tsuchiya, MD, PhD; Satoshi Hashizume, MD;
Shinji Akamine, MD, PhD; Masashi Muraoka, MD, PhD; Sunihisa Honda, PhD;
Koichi Tsuji, MD, PhD; Shougo Umibe, MD, PhD;
Tomayoshi Hayashi, MD, PhD; Naoya Yamasaki, MD, PhD; and
Takeshi Nagayasu, MD, PhD

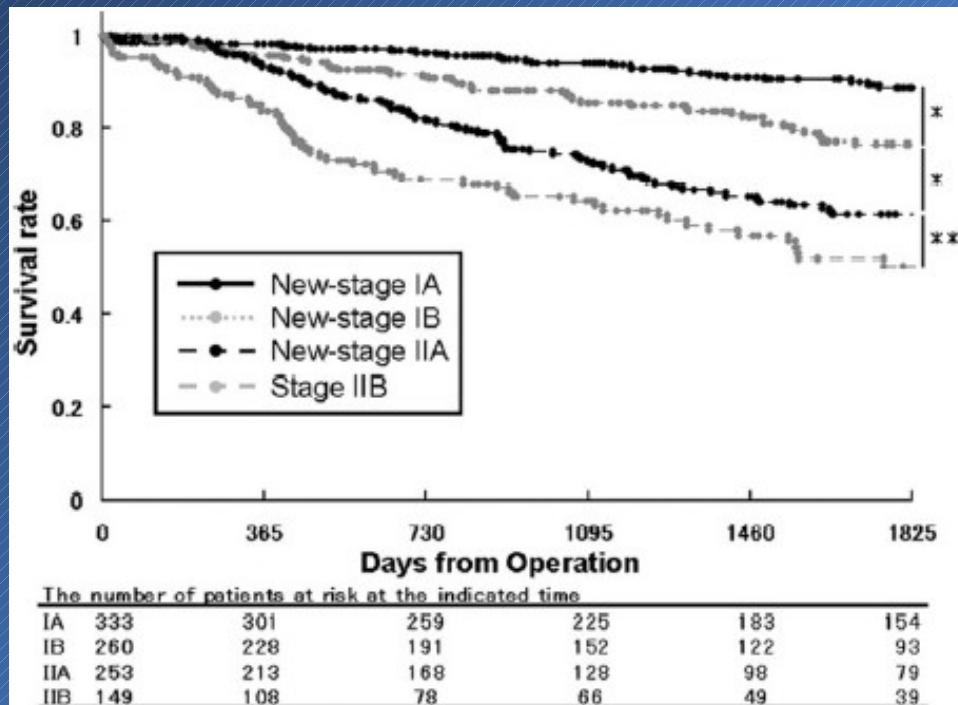
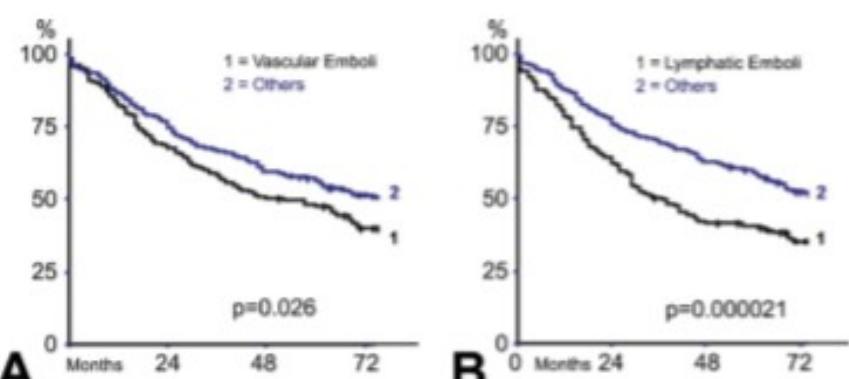
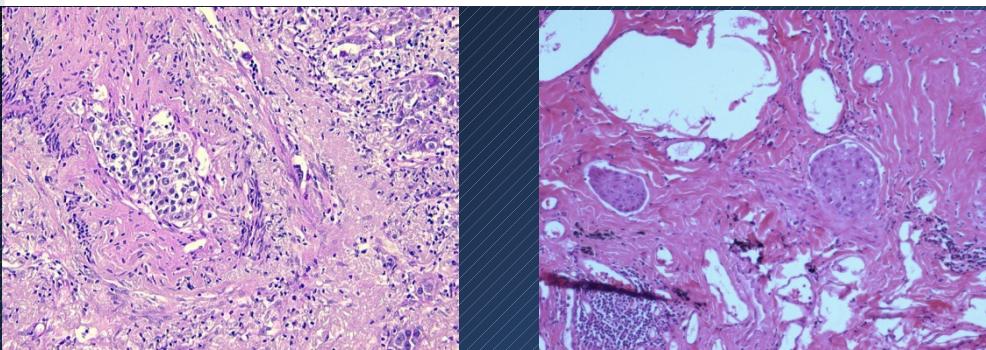


FIGURE 4. Overall 5-year survival using the proposed new TNM staging system based on Vi. * $p < 0.001$ and ** $p = 0.063$, log-rank test.

Prognostic Significance of Vascular and Lymphatic Emboli in Resected Pulmonary Adenocarcinoma

Salvatore Strano, MD, Audrey Lupo, MD, Filippo Lococo, MD, Olivier Schussler, MD, PhD, Mauro Loi, MD, Mohamad Younes, MD, PhD, Antonio Bobbio, MD, PhD, Diane Damotte, MD, PhD, Jean-François Regnard, MD,* and Marco Alifano, MD, PhD*

Departments of Thoracic Surgery and of Pathology, Hôtel-Dieu Hospital, Paris Descartes University, Paris, France; and Department of Thoracic Surgery, Catholic University of Rome, Rome, Italy



	Patients at Risk					Patients at Risk				
	Group 1	183	122	85	46	Group 1	149	96	59	31
Group 2	320	241	181	90		Group 2	354	267	187	103

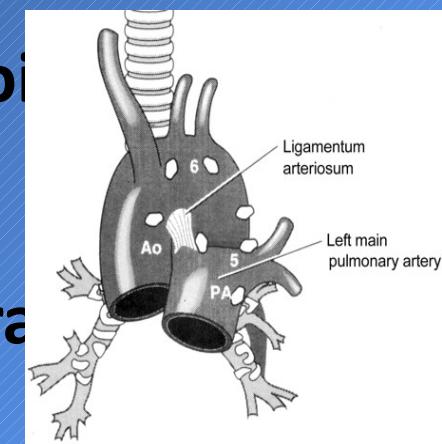
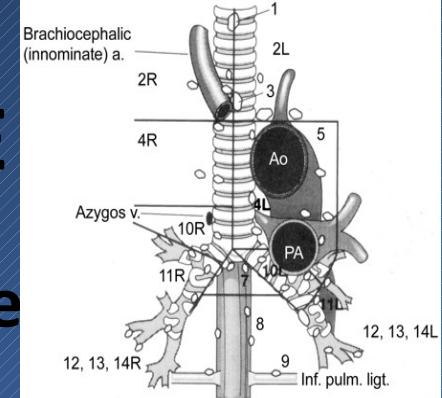
Table 4. Proportional Hazards Regression Analysis: Selected Output From Cox Regression on Presence of Vascular or Lymphatic Emboli

Univariate Analysis	<i>p</i> Value	
Age, >65 years	0.0019	
Sex	0.29	
Side	0.58	
Tobacco use	0.45	
COPD	0.042	
Induction chemotherapy	0.000018	
Resection extent, lobectomy versus pneumonectomy	0.0047	
T size	0.00020	
T factor	0.0000016	
N factor	< 0.0000001	
Pathologic stage	< 0.000001	
Vascular emboli	0.026	
Lymphatic emboli	0.000021	
Multivariate Analysis (Model 1)	Odds Ratio (CI)	<i>p</i> Value
Age, >65 years	1.5 (1.13–1.98)	0.0047
Extent of resection		
Lobectomy	1	0.17
Pneumonectomy	1.35 (0.88–2.07)	
Pathologic stage		
I	1	0.00000032
II	1.43 (1.25–1.64)	
III	2.05 (1.55–2.69)	
IV	2.92 (1.94–4.42)	
Vascular emboli	1.07 (0.8–1.44)	0.65
Lymphatic emboli	1.34 (1–1.81)	0.05
Multivariate Analysis (Model 2)	Odds Ratio (CI)	<i>p</i> Value
Age, >65 years	1.5 (1.12–2.02)	0.007
Extent of resection		
Lobectomy	1	0.57
Pneumonectomy	1.15 (0.71–1.85)	
Pathologic stage	...	
T size		
<2 cm	1	0.032
2–3 cm	1.17 (1.01–1.35)	
3–5 cm	1.37 (1.03–1.83)	
5–7 cm	1.61 (1.04–2.48)	
>7 cm	1.88 (1.06–3.36)	
PN		
N0	1	0.0000096
N1	1.46 (1.23–1.72)	
N2	2.13 (1.52–2.97)	
Vascular emboli	1.07 (0.79–1.45)	0.67
Lymphatic emboli	1.39 (1.02–1.90)	0.036

CI = confidence interval; COPD = chronic obstructive pulmonary disease.

CURAGE GANGLIONNAIRE

- Fait partie intégrante de l'exérèse pour cancer
- Curage pédiculaire
interlobaire
médiastinal (latéro-trachéal, pré-
carénaire, inter-trachéo-bronchique et para-
œsophagien)
- Curage complet > picking
- Intérêt → pronostic
→ ± thérapeutique notamment à droite
- Augmente légèrement la morbidité post-
opératoire = paralysie récurrentielle, chylothorax,
fistule



PRINCIPAUX RESULTATS (1)

Stade I	T_1N_0 T_2N_0	80 % de survie à 5 ans 60 %
Stade II	$T_1T_2N_1$ T_3N_0	50 % 40 %
Stade IIIA	$T_{1\rightarrow 3}N_2$ T_3N_1	20% à 40 % <small>du</small>
Stade IIIB	$T_4N_{0\rightarrow 1}$ T_4N_2	40 % si carène 20 % si VCS ou OG < 10 %
Stade IV		Quelques survivants

SF-12

	Mental component score, pt (\pm SD)	Physical component score, pt (\pm SD)
Normal adults (EU)	83 (25)	80 (30)
Prostate cancer (with pain)	45.3 (9.8)	45.8 (11.8)
Prostate cancer (without pain)	52.4 (4.9)	51.6 (9.7)
Groin hernia (preoperative)	75.1 (24.6)	61.5 (35.3)
Varices (preoperative)	50.1 (41-56)	49.6 (42-55)
Varices (6 weeks, post-op)	53.8 (45-57)	53.7 (46-56)
Pneumonectomy		
Janet Vendroux et al	50.7 (9.6)	39.1 (9.0)

*Gerbershagun et al, Eur J pain, 2008,
Champault et al, Hernia, 2011
Shepherd et al, J Vasc Surg, 2011*

merci

RESULTATS (3)

Survies à 5 ans

T ₃ paroi	Plèvre pariétale Paroi N ₂	40 % si N ₀ -N ₁ 20 % 15 %
T4 carène	N ₀ -N ₁ N ₂	40 % 10 %
T4 VCS		28 %
Pancoast	Exérèse complète	45 %