COURS DU GOLF

Accueil du site de Congrès GOLF 2017

Groupe d'Oncologie de Langue Française

Septembre 2017

Stratégies Chirurgicales Mini-Invasives

PA Thomas - Marseille

Liens d’intérêts

Ethicon Endo-Surgery

Medtronic

COVIDIEN

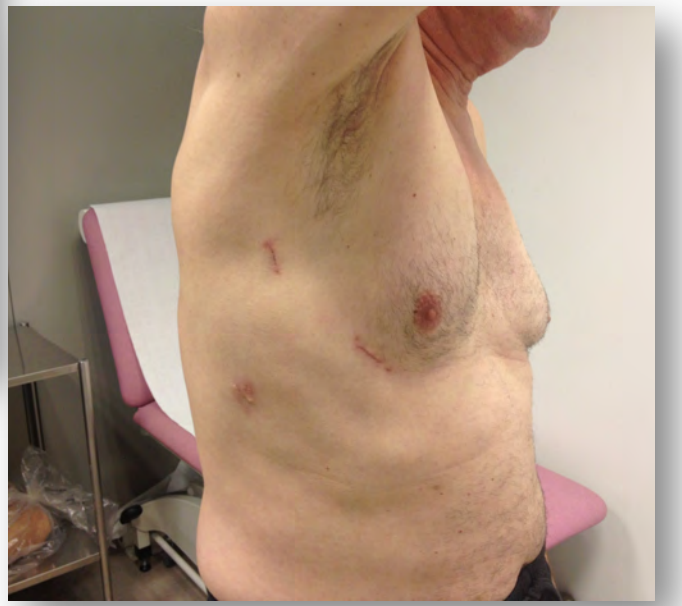
SFCTCV

SOCIÉTÉ FRANÇAISE
DE CHIRURGIE THORACIQUE
ET CARDIO-VASCULAIRE

Stratégies mini-invasives

- Chirurgie thoracoscopique vidéo- et robot-assistée
- Chirurgie d'épargne parenchymateuse
- Parcours de soins – modes d'hospitalisation

Abords mini-invasifs



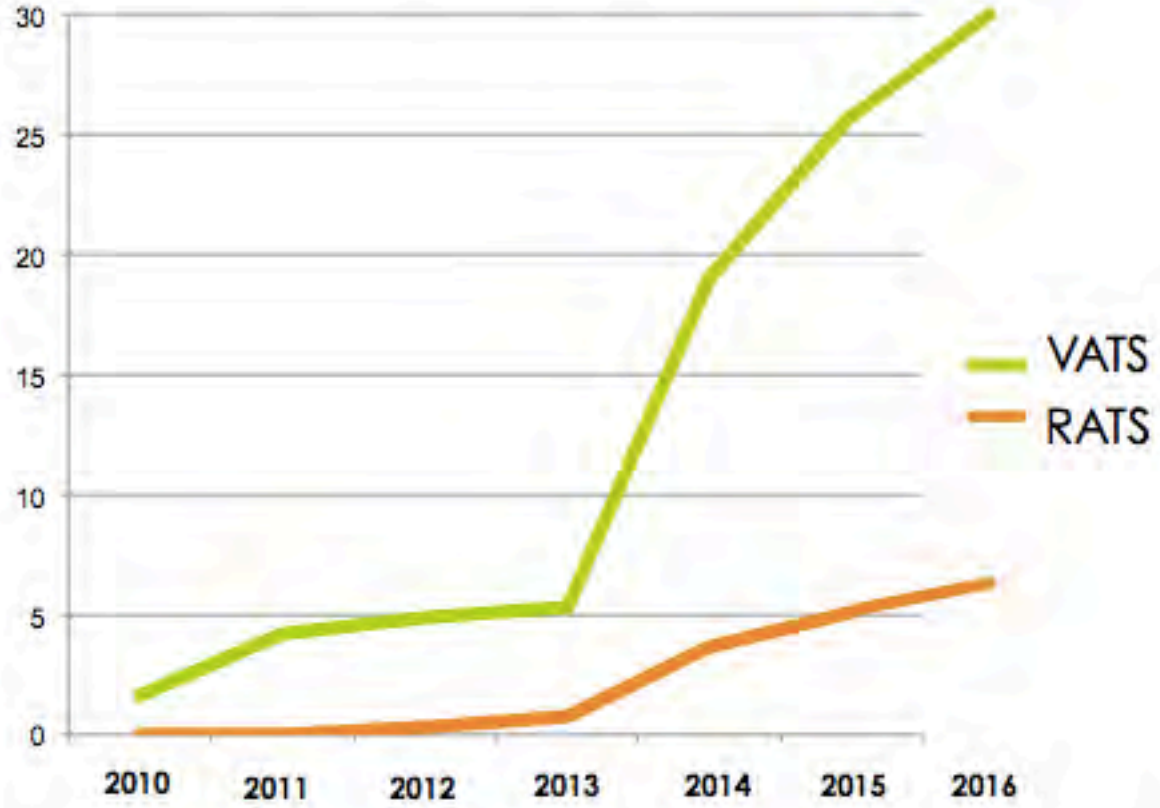

Thoracoscopie vidéo-assistée

Thoracoscopie robot-assistée

Lobectomies mini-invasives pour cancer pulmonaire primitif

35%

VATS/RATS



Données EPITHOR®

MORBIDITE ET MORTALITE

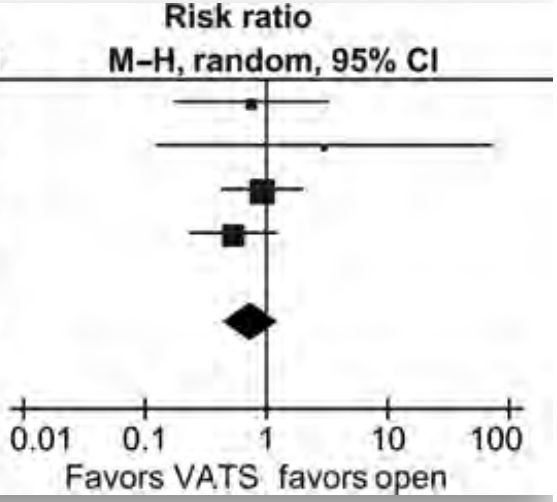
Résections par VATS des cancers pulmonaires CPNPC

Mortalité

Study or subgroup	VATS Events	VATS Total	Thoracotomy Events	Thoracotomy Total	Weight	Risk ratio M–H, random, 95% CI
Ilonen (2011)	3	116	4	116	12.7%	0.75 [0.17, 3.28]
Park (2011)	1	136	0	136	2.7%	3.00 [0.12, 73.00]
Paul (2010)	12	1281	13	1281	45.5%	0.92 [0.42, 2.02]
Villamizar (2009)	8	284	15	284	39.1%	0.53 [0.23, 1.24]
Total (95% CI)		**1817**		**1817**	**100.0%**	**0.75 [0.44, 1.27]**
Total events	24		32			

Heterogeneity: $\tau^2 = 0.00$; $\chi^2 = 1.63$, df = 3 ($P = 0.65$); $I^2 = 0\%$

Test for overall effect: $Z = 1.08$ ($P = 0.28$)



Video-assisted thoracic surgery versus open thoracotomy for non-small cell lung cancer: a meta-analysis of propensity score-matched patients

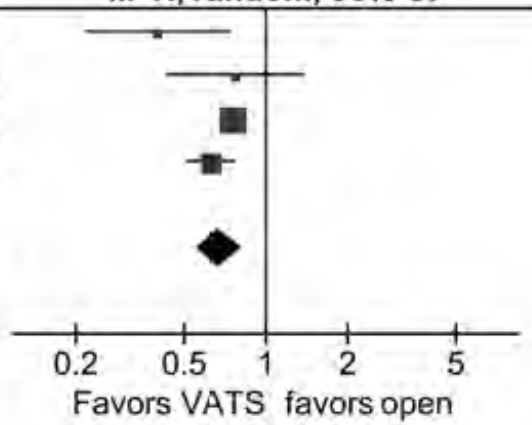
Cao C et al. Interactive CardioVascular and Thoracic Surgery 2013;16 :244–249

Morbidité

Study or subgroup	VATS Events	VATS Total	Thoracotomy Events	Thoracotomy Total	Weight	Risk ratio M–H, random, 95% CI
Ilonen (2011)	12	116	30	116	8.4%	0.40 [0.22, 0.74]
Park (2011)	17	136	22	136	9.2%	0.77 [0.43, 1.39]
Paul (2010)	336	1281	444	1281	47.8%	0.76 [0.67, 0.85]
Villamizar (2009)	88	284	140	284	34.6%	0.63 [0.51, 0.78]
Total (95% CI)		**1817**		**1817**	**100.0%**	**0.67 [0.56, 0.82]**
Total events	453		636			

Heterogeneity: $\tau^2 = 0.02$; $\chi^2 = 5.79$, df = 3 ($P = 0.12$); $I^2 = 48\%$

Test for overall effect: $Z = 3.99$ ($P < 0.0001$)



Video-assisted thoracic surgery versus open thoracotomy for non-small cell lung cancer: a meta-analysis of propensity score-matched patients

Cao C et al. Interactive CardioVascular and Thoracic Surgery 2013;16 :244–249

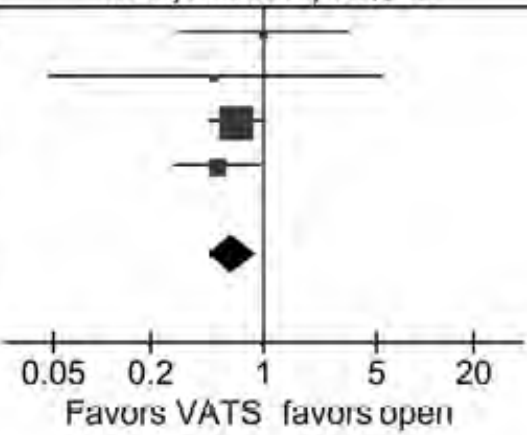
Complications respiratoires

(b)

Study or subgroup	VATS Events	VATS Total	Thoracotomy Events	Thoracotomy Total	Weight	Risk ratio M–H, random, 95% CI
Ilonen (2011)	5	116	5	116	7.1%	1.00 [0.30, 3.36]
Park (2011)	1	136	2	136	1.8%	0.50 [0.05, 5.45]
Paul (2010)	38	1281	56	1281	64.1%	0.68 [0.45, 1.02]
Villamizar (2009)	14	284	27	284	26.9%	0.52 [0.28, 0.97]
Total (95% CI)		**1817**		**1817**	**100.0%**	**0.65 [0.47, 0.89]**
Total events	58		90			

Heterogeneity: $\tau^2 = 0.00$; $\chi^2 = 1.08$, df = 3 ($P = 0.78$); $I^2 = 0\%$

Test for overall effect: $Z = 2.65$ ($P = 0.008$)



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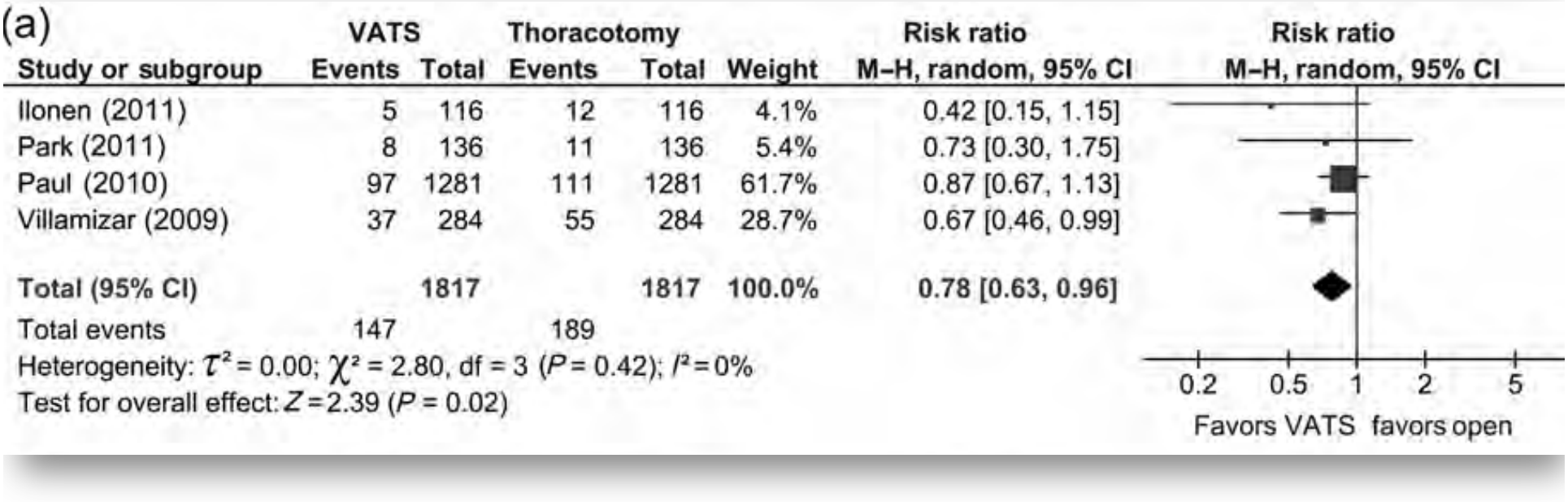
Cao C et al. Interactive CardioVascular and Thoracic Surgery 2013;16 :244–249

Fuites aériennes prolongées



(a)

Study or subgroup	VATS Events	VATS Total	Thoracotomy Events	Thoracotomy Total	Weight	Risk ratio M–H, random, 95% CI
Ilonen (2011)	5	116	12	116	4.1%	0.42 [0.15, 1.15]
Park (2011)	8	136	11	136	5.4%	0.73 [0.30, 1.75]
Paul (2010)	97	1281	111	1281	61.7%	0.87 [0.67, 1.13]
Villamizar (2009)	37	284	55	284	28.7%	0.67 [0.46, 0.99]
Total (95% CI)		**1817**		**1817**	**100.0%**	**0.78 [0.63, 0.96]**
Total events	147		189			

Heterogeneity: $\tau^2 = 0.00$; $\chi^2 = 2.80$, df = 3 ($P = 0.42$); $I^2 = 0\%$

Test for overall effect: $Z = 2.39$ ($P = 0.02$)

Video-assisted thoracic surgery versus open thoracotomy for non-small cell lung cancer: a meta-analysis of propensity score-matched patients

Cao C et al. Interactive CardioVascular and Thoracic Surgery 2013;16 :244–249

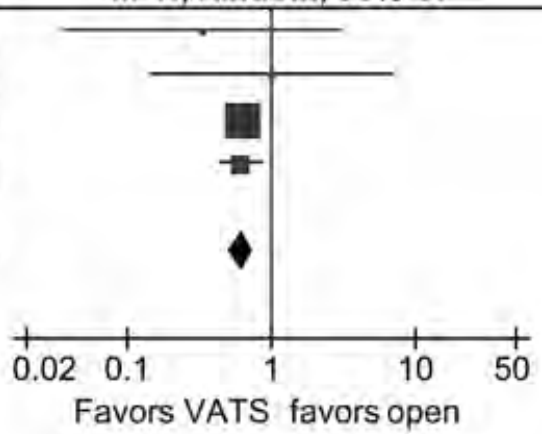
Troubles du rythme

(c)

Study or subgroup	VATS Events	VATS Total	Thoracotomy Events	Thoracotomy Total	Weight	Risk ratio M–H, random, 95% CI
Ilonen (2011)	1	116	3	116	0.8%	0.33 [0.04, 3.16]
Park (2011)	2	136	2	136	1.1%	1.00 [0.14, 7.00]
Paul (2010)	93	1281	147	1281	68.1%	0.63 [0.49, 0.81]
Villamizar (2009)	37	284	61	284	29.9%	0.61 [0.42, 0.88]
Total (95% CI)		**1817**		**1817**	**100.0%**	**0.62 [0.51, 0.77]**
Total events	133		213			

Heterogeneity: $\tau^2 = 0.00$; $\chi^2 = 0.56$, df = 3 ($P = 0.91$); $I^2 = 0\%$

Test for overall effect: $Z = 4.51$ ($P < 0.00001$)



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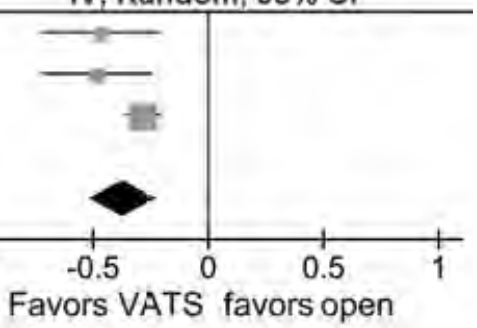
Cao C et al. Interactive CardioVascular and Thoracic Surgery 2013;16 :244–249

Durée d'hospitalisation

Study or subgroup	VATS Mean	VATS SD	VATS Total	Thoracotomy Mean	Thoracotomy SD	Thoracotomy Total	Weight	Std. mean difference IV, Random, 95% CI
Ilonen (2011)	7.5	6.7	116	10.8	7.4	116	21.2%	-0.47 [-0.73, -0.21]
Park (2011)	6.3	3.3	136	8.8	6.5	136	23.5%	-0.48 [-0.72, -0.24]
Paul (2010)	5.31	5.95	1281	7.16	7.08	1281	55.3%	-0.28 [-0.36, -0.20]
Total (95% CI)			**1533**			**1533**	**100.0%**	**-0.37 [-0.51, -0.22]**

Heterogeneity: $\tau^2 = 0.01$; $\chi^2 = 3.82$, df = 2 ($P = 0.15$); $I^2 = 48\%$

Test for overall effect: $Z = 4.95$ ($P < 0.00001$)



Video-assisted thoracic surgery versus open thoracotomy for non-small cell lung cancer: a meta-analysis of propensity score-matched patients

Cao C et al. Interactive CardioVascular and Thoracic Surgery 2013;16 :244–249

Sujets « à risques »

Outcome: operative mortality

Study or Subgroup	VATS Events	VATS Total	Open Events	Open Total	Weight	Risk Ratio M-H, Fixed, 95% CI
Berry et al.	6	173	11	167	59.8%	0.53 [0.20, 1.39]
Lau et al.	4	49	5	35	31.2%	0.57 [0.17, 1.98]
Kachare et al.	1	59	1	11	9.0%	0.19 [0.01, 2.76]
Total (95% CI)		281		213	100.0%	0.51 [0.24, 1.06]
Total events	11		17			

Heterogeneity: $Chi^2 = 0.57$, df = 2, (P = 0.75); $I^2 = 0\%$
Test for overall effect: Z = 1.80 (P = 0.07)

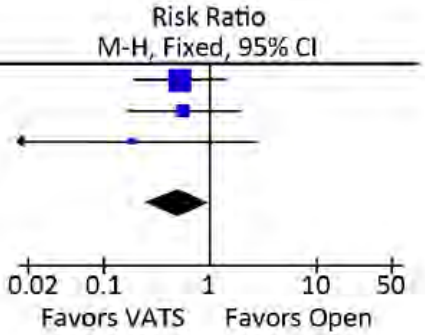


Fig 2. Meta-analyses of operative mortality.

Video-Assisted versus Open Lobectomy in Patients with Compromised Lung Function: A Literature Review and Meta-Analysis

Ruoyu Zhang[1], Mark K. Ferguson[2]*

PLOS ONE

2015:10:e0124512.

Outcome: pulmonary morbidity

Study or Subgroup	VATS Events	VATS Total	Open Events	Open Total	Weight	Risk Ratio IV, Fixed, 95% CI
Lau et al.	11	49	18	35	45.2%	0.44 [0.24, 0.80]
Berry et al.	6	47	18	40	25.0%	0.28 [0.12, 0.65]
Kachare et al.	18	59	5	11	29.8%	0.67 [0.32, 1.43]
Total (95% CI)		155		86	100.0%	0.45 [0.30, 0.37]
Total events	35		41			

Heterogeneity: $Chi^2 = 2.30$, df = 2 (P = 0.32); $I^2 = 13\%$
Test for overall effect: Z = 3.85 (P = 0.0001)

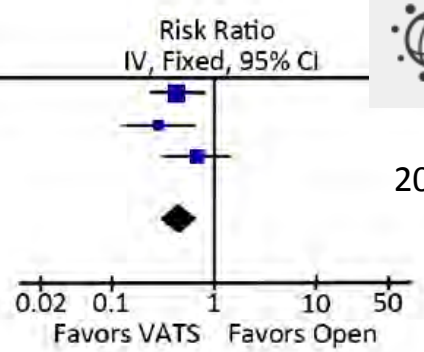


Fig 4. Meta-analyses of pulmonary morbidity.

High Risk for Thoracotomy but not Thoracoscopic Lobectomy

Laura L. Donahoe, MD, Moira de Valence, MD, Eshetu G. Atenafu, PStat, Waël C. Hanna, MDCM, Thomas K. Waddell, MD, Andrew F. Pierre, MD, Kazuhiro Yasufuku, MD, Marc de Perrot, MD, Marcelo Cypel, MD, Shaf Keshavjee, MD, and Gail E. Darling, MD

Division of Thoracic Surgery, Toronto General Hospital, University of Toronto, Toronto, Ontario; Department of Biostatistics, Princess Margaret Cancer Centre, University Health Network, Toronto, Ontario; Division of Thoracic Surgery, St. Joseph's Health Care, McMaster University, Hamilton, Ontario, Canada

Background. Pulmonary lobectomy is the standard of care for resection of non-small cell lung cancer (NSCLC). Patients with compromised lung function who are considered high risk may be denied surgical treatment; thus, proper identification of those truly at high risk is critical. Video-assisted thoracic surgery (VATS) may reduce the operative risk. This study reviews our institutional experience of pulmonary lobectomy by open thoracotomy or VATS techniques in patients deemed to be high risk.

Methods. A retrospective review of an institutional database was performed for all patients undergoing lobectomy from 2002 to 2010. Patients were grouped into high-risk (HR) and standard-risk (SR) cohorts according to the American College of Surgeons Oncology Group Z4099/Radiation Therapy Oncology Group 1021 criteria.

Results. From 2002 to 2010, 72 HR and 536 SR patients underwent lobectomy. Mean age was 73 years for HR and 66 years for SR ($p < 0.0001$). Rates of overall ($p < 0.0001$) and pulmonary complications ($p < 0.0001$) were significantly higher in the HR group. However, when HR patients were resected by VATS, there was no significant difference in overall ($p = 0.1299$) or pulmonary complications ($p = 0.2292$) compared with the SR VATS group. Moreover, overall survival was significantly lower for HR patients who had an open operation compared with VATS lobectomy or SR open ($p = 0.0028$).

Conclusions. VATS lobectomy offers patients who are considered to be at increased risk for open lobectomy a feasible procedure, with no difference in overall survival compared with SR patients, and decreased morbidity compared with open lobectomy. VATS lobectomy should be considered for patients who historically may not have been considered for surgical resection.

(Ann Thorac Surg 2017;103:1730–5)

QUALITE DE VIE

Résections par VATS des cancers pulmonaires CPNPC

Postoperative pain and quality of life after lobectomy via video-assisted thoracoscopic surgery or anterolateral thoracotomy for early stage lung cancer: a randomised controlled trial

Morten Bendixen, Ole Dan Jørgensen, Christian Kronborg, Claus Andersen, Peter Bjørn Licht

Summary

Background Video-assisted thoracoscopic surgery (VATS) is used increasingly as an alternative to thoracotomy for lobectomy in the treatment of early-stage non-small-cell lung cancer, but remains controversial and worldwide adoption rates are low. Non-randomised studies have suggested that VATS reduces postoperative morbidity, but there is little high-quality evidence to show its superiority over open surgery. We aimed to investigate postoperative pain and quality of life in a randomised trial of patients with early-stage non-small-cell lung cancer undergoing VATS versus open surgery.

Lancet Oncol 2016

Published Online
May 6, 2016
http://dx.doi.org/10.1016/S1470-2045(16)00173-X

See Online/Comment
http://dx.doi.org/10.1016/

Bendixen M, Jørgensen OD, Kronborg C, Andersen C, Licht PB. Lancet Oncol 2016;17:836-44

Findings Between Oct 1, 2008, and Aug 20, 2014, we screened 772 patients, of whom 361 were eligible for inclusion and 206 were enrolled. We randomly assigned 103 patients to VATS and 103 to anterolateral thoracotomy. 102 patients in the VATS group and 99 in the thoracotomy group were included in the final analysis. The proportion of patients with clinically relevant pain (NRS ≥3) was significantly lower during the first 24 h after VATS than after anterolateral thoracotomy (VATS 38%, 95% CI 0·28–0·48 *vs* thoracotomy 63%, 95% CI 0·52–0·72, p=0·0012). During 52 weeks of follow-up, episodes of moderate-to-severe pain were significantly less frequent after VATS than after anterolateral thoracotomy (p<0·0001) and self-reported quality of life according to EQ5D was significantly better after VATS (p=0·014). By contrast, for the whole study period, quality of life according to QLQ-C30 was not significantly different between groups (p=0·13). Postoperative surgical complications (grade 3–4 adverse events) were similar between the two groups, consisting of prolonged air leakage over 4 days (14 patients in the VATS group *vs* nine patients in the thoracotomy group), re-operation for bleeding (two *vs* none), twisted middle lobe (one *vs* three) or prolonged air leakage over 7 days (five *vs* six), arrhythmia (one *vs* one), or neurological events (one *vs* two). Nine (4%) patients died during the follow-up period (three in the VATS group and six in the thoracotomy group).

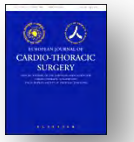
Interpretation VATS is associated with less postoperative pain and better quality of life than is anterolateral thoracotomy for the first year after surgery, suggesting that VATS should be the preferred surgical approach for lobectomy in stage I non-small-cell lung cancer.

Bendixen M, Jørgensen OD, Kronborg C, Andersen C, Licht PB. Lancet Oncol 2016;17:836-44

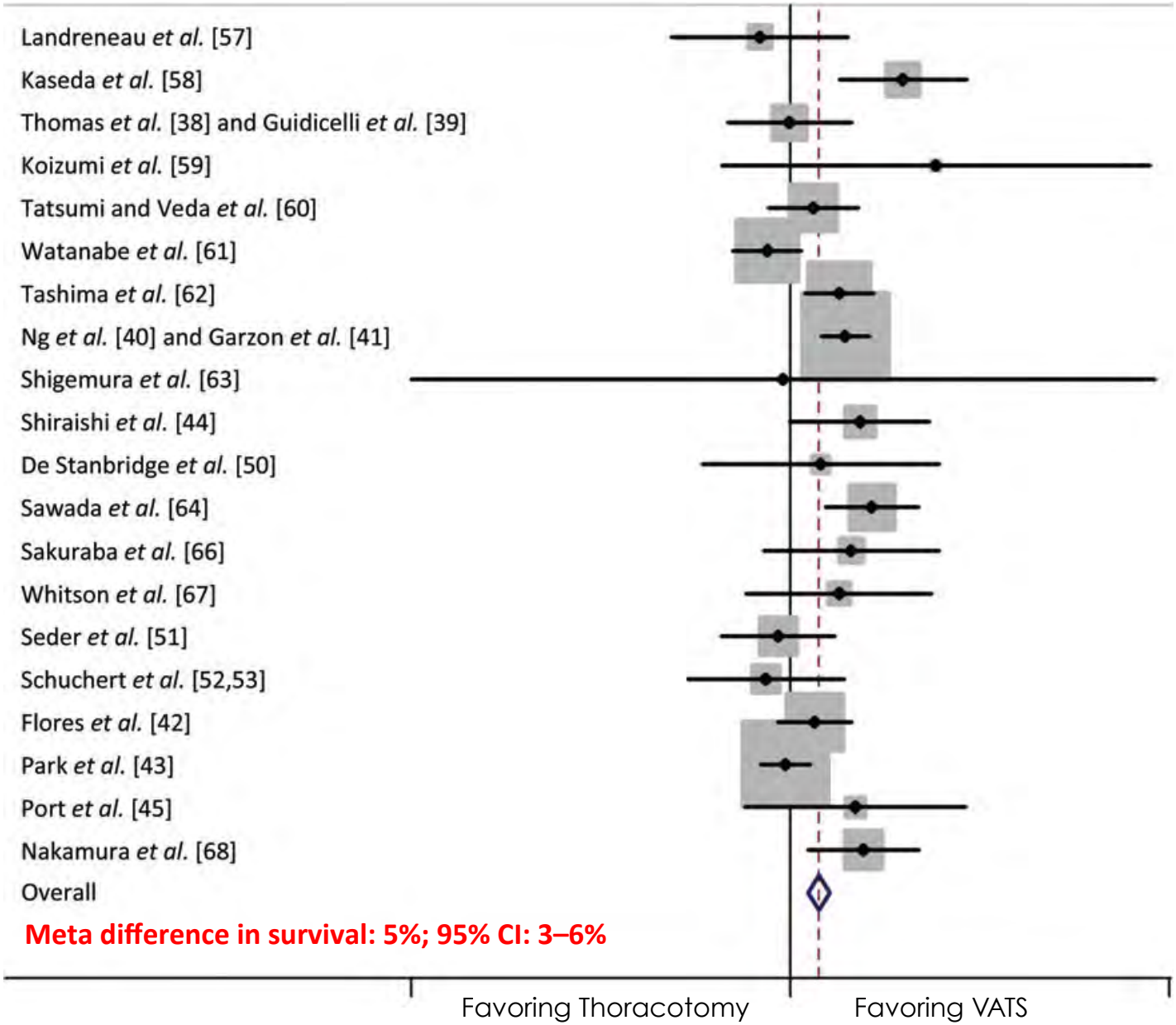
RESULTATS ONCOLOGIQUES

Résections par VATS des cancers pulmonaires CPNPC

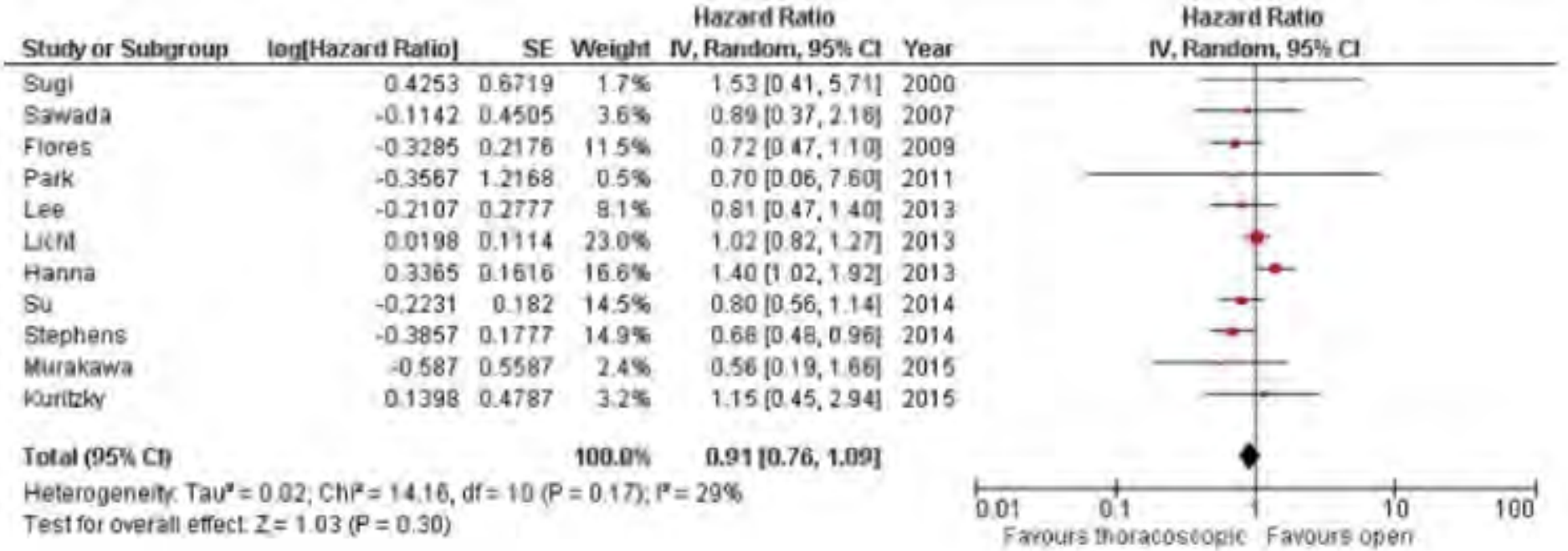
Survie à long terme



Taioli E et al. 2013;*44 :591–597*



Survie à long terme



Study or Subgroup	log[Hazard Ratio]	SE	Weight	Hazard Ratio IV, Random, 95% CI	Year
Sugi	0.4253	0.6719	1.7%	1.53 [0.41, 5.71]	2000
Sawada	-0.1142	0.4505	3.6%	0.89 [0.37, 2.16]	2007
Flores	-0.3285	0.2176	11.5%	0.72 [0.47, 1.10]	2009
Park	-0.3567	1.2168	0.5%	0.70 [0.06, 7.60]	2011
Lee	-0.2107	0.2777	8.1%	0.81 [0.47, 1.40]	2013
Licht	0.0198	0.1114	23.0%	1.02 [0.82, 1.27]	2013
Hanna	0.3365	0.1616	16.6%	1.40 [1.02, 1.92]	2013
Su	-0.2231	0.182	14.5%	0.80 [0.56, 1.14]	2014
Stephens	-0.3857	0.1777	14.9%	0.68 [0.48, 0.96]	2014
Murakawa	-0.587	0.5587	2.4%	0.56 [0.19, 1.66]	2015
Kuritzky	0.1398	0.4787	3.2%	1.15 [0.45, 2.94]	2015
Total (95% CI)			**100.0%**	**0.91 [0.76, 1.09]**	

Heterogeneity: Tau² = 0.02; Chi² = 14.16, df = 10 (P = 0.17); I² = 29%
Test for overall effect: Z = 1.03 (P = 0.30)

Hamaji M, Lee HS, Kawaguchi A, Burt BM. Overall Survival Following Thoracoscopic vs Open Lobectomy for Early-stage Non-small Cell Lung Cancer: A Meta-analysis. Semin Thorac Cardiovasc Surg 2017;29:104-112.

Résultats Oncologiques

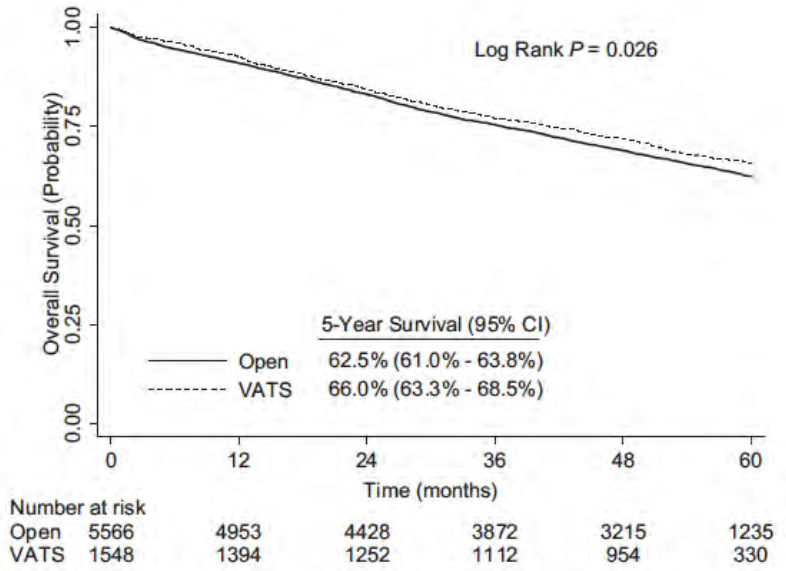
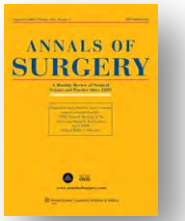


FIGURE 2. Overall survival of cT1–2, N0, M0 NSCLC patients, stratified by open versus VATS lobectomy.



Chi-Fu Jeffrey Yang et al. Ann Surg 2017;in press

National Cancer Data Base

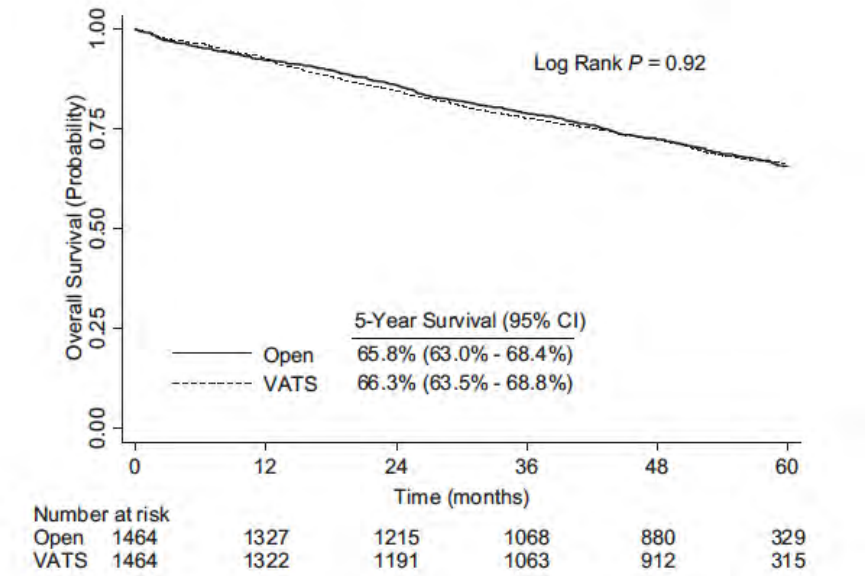
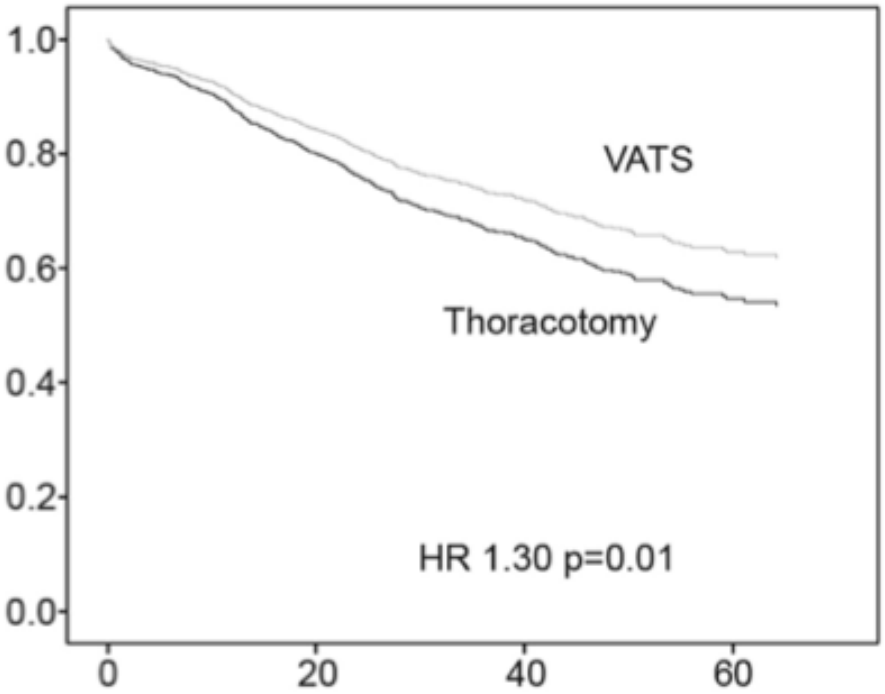
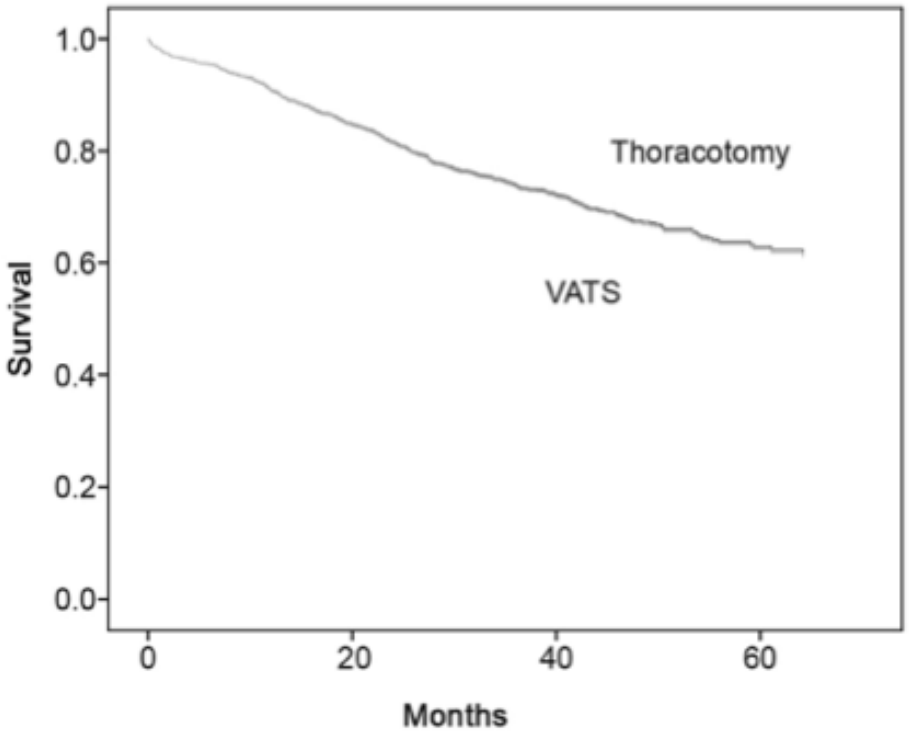


FIGURE 3. Overall survival of cT1–2, N0, M0 NSCLC patients, stratified by open versus VATS lobectomy: propensity score-matched analysis.

Résultats Oncologiques



Danish lung Cancer Registry



Licht PB et al. Ann Thorac Surg 2013;96:943–50

Réévaluation du stade ganglionnaire

A National Study of Nodal Upstaging After Thoracoscopic Versus Open Lobectomy for Clinical Stage I Lung Cancer

Peter B. Licht, MD, PhD, Ole Dan Jørgensen, MD, PhD, Lars Ladegaard, MD, and Erik Jakobsen, MD, MPM

Department of Cardiothoracic Surgery and Danish Lung Cancer Registry, Odense University Hospital, Odense, Denmark

Background. Noc
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reporting, and sur
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and survival after lobectomy by VATS or thoracotomy.

Methods. The Danish Lung Cancer Registry was used to identify patients who underwent lobectomy for clinical stage I NSCLC from 2007 to 2011. Patient demographics, comorbidity, preoperative staging, surgical approach, number of lymph nodes harvested, final pathology, and survival were evaluated. Nodal upstaging was identified by comparing cT N M with pT N M.

Results. Lobectomy for clinical stage I NSCLC was performed in 1,513 patients: 717 (47%) by VATS and 796

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%; $p < 0.001$)
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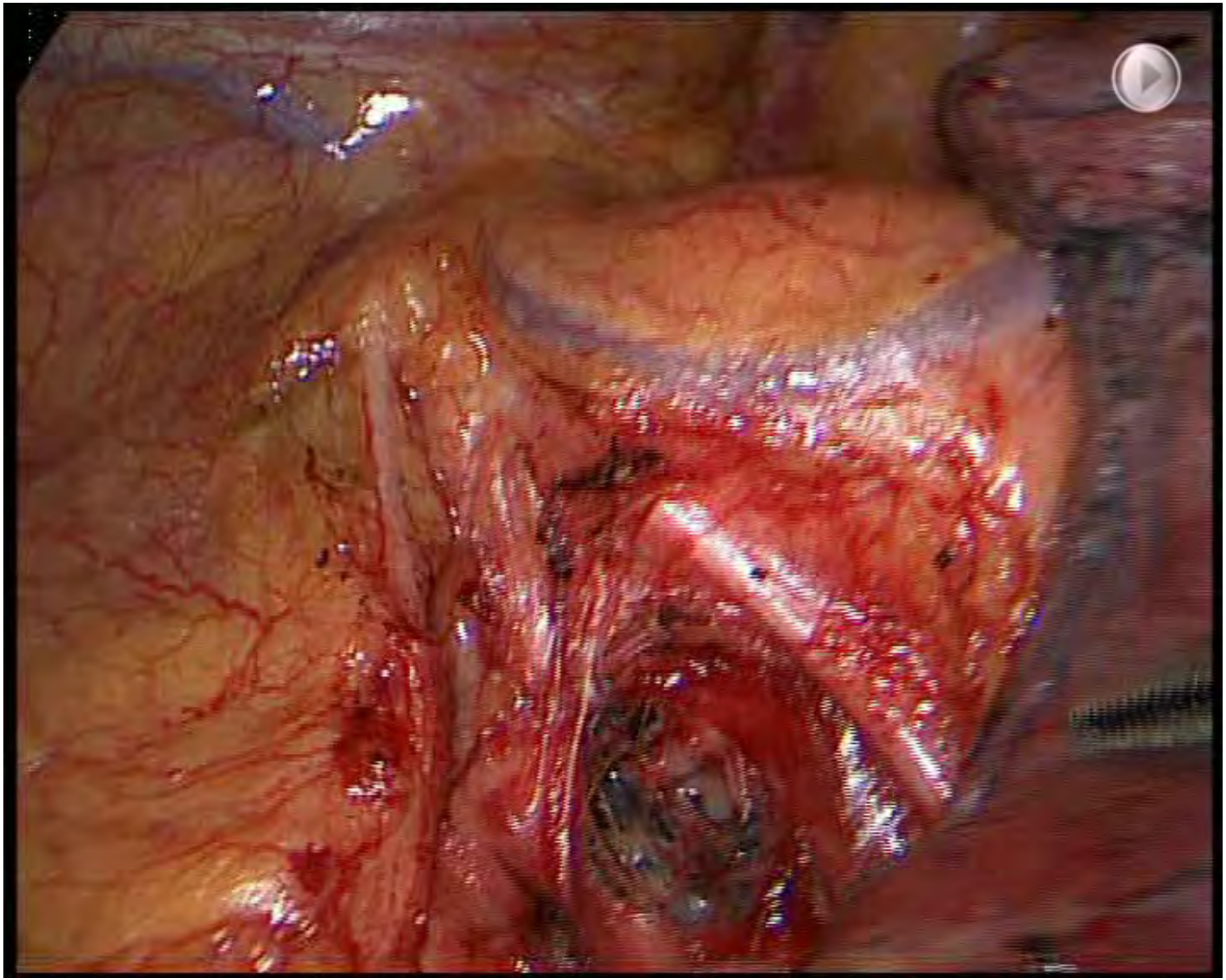
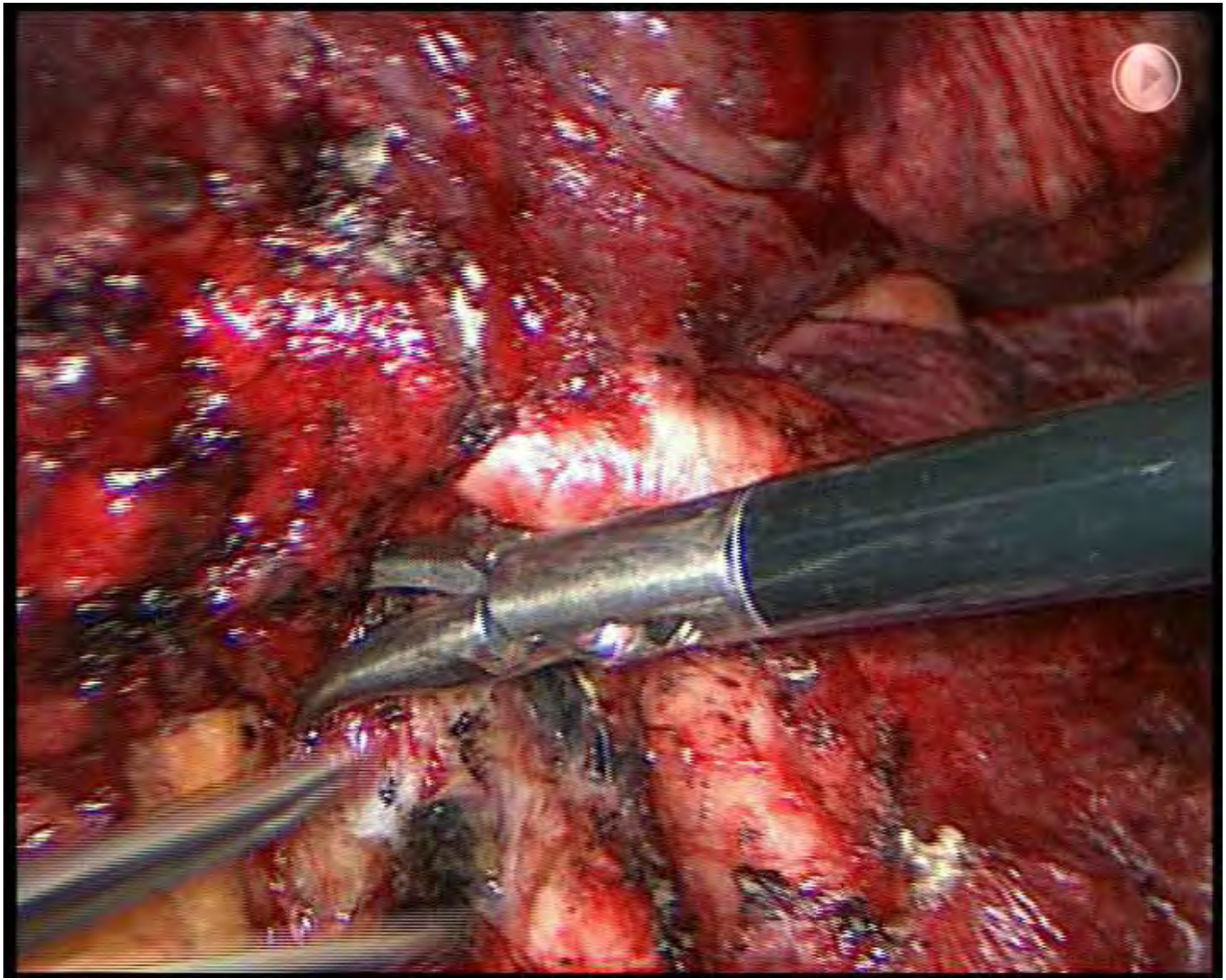
Conclusions. National data confirm that nodal upstaging was lower after VATS than after open lobectomy for clinical stage I NSCLC. Multivariate survival analysis, however, showed no difference in survival, indicating that differences in nodal upstaging result from patient selection for reasons not captured in our registry.

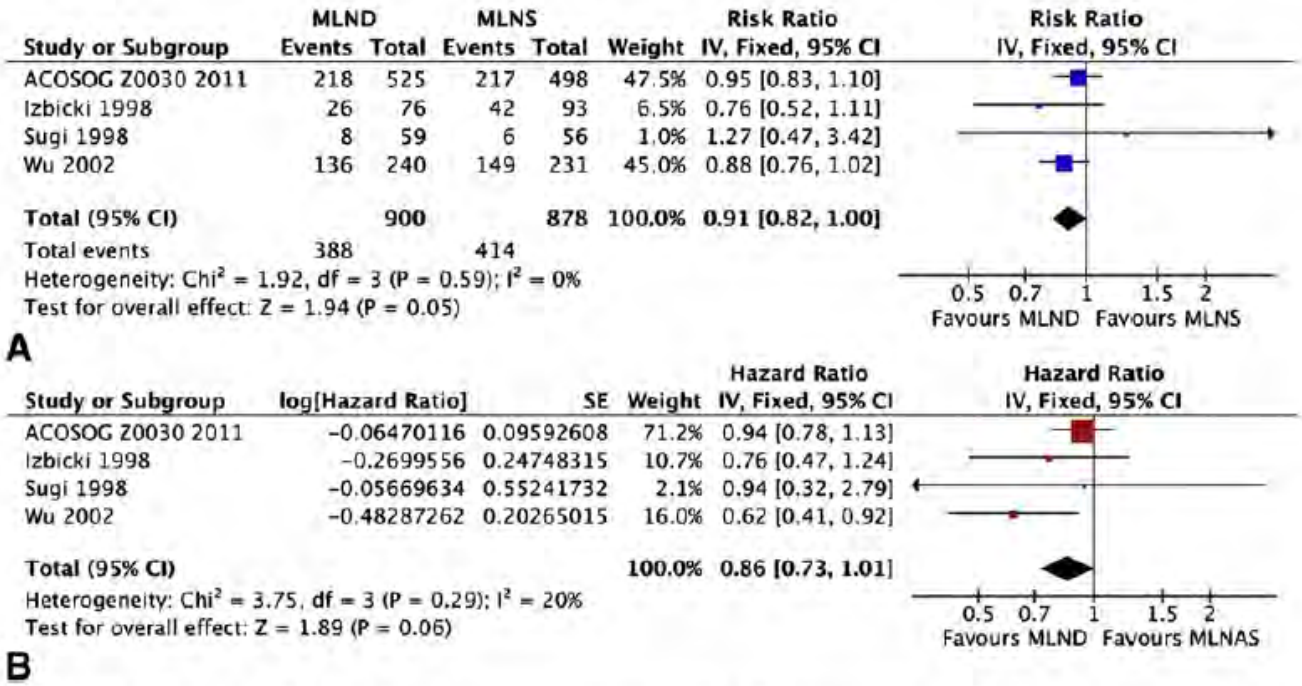
Conclusions. National data confirm that nodal upstaging was lower after VATS than after open lobectomy for clinical stage I NSCLC. Multivariate survival analysis, however, showed no difference in survival, indicating that differences in nodal upstaging result from patient selection for reasons not captured in our registry.

(Ann Thorac Surg 2013;96:943–50)





Curage vs. Echantillonnage
Médecine Factuelle



Study or Subgroup	MLND Events	MLND Total	MLNS Events	MLNS Total	Weight	Risk Ratio IV, Fixed, 95% CI
ACOSOG Z0030 2011	218	525	217	498	47.5%	0.95 [0.83, 1.10]
Izbicki 1998	26	76	42	93	6.5%	0.76 [0.52, 1.11]
Sugi 1998	8	59	6	56	1.0%	1.27 [0.47, 3.42]
Wu 2002	136	240	149	231	45.0%	0.88 [0.76, 1.02]
Total (95% CI)		**900**		**878**	**100.0%**	**0.91 [0.82, 1.00]**
Total events	388		414			

Heterogeneity: Chi² = 1.92, df = 3 (P = 0.59); I² = 0%
Test for overall effect: Z = 1.94 (P = 0.05)

Risk Ratio IV, Fixed, 95% CI
0.5 0.7 1 1.5 2
Favours MLND Favours MLNS

A

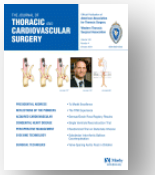
Study or Subgroup	log[Hazard Ratio]	SE	Weight	Hazard Ratio IV, Fixed, 95% CI
ACOSOG Z0030 2011	-0.06470116	0.09592608	71.2%	0.94 [0.78, 1.13]
Izbicki 1998	-0.2699556	0.24748315	10.7%	0.76 [0.47, 1.24]
Sugi 1998	-0.05669634	0.55241732	2.1%	0.94 [0.32, 2.79]
Wu 2002	-0.48287262	0.20265015	16.0%	0.62 [0.41, 0.92]
Total (95% CI)			**100.0%**	**0.86 [0.73, 1.01]**

Heterogeneity: Chi² = 3.75, df = 3 (P = 0.29); I² = 20%
Test for overall effect: Z = 1.89 (P = 0.06)

Hazard Ratio IV, Fixed, 95% CI
0.5 0.7 1 1.5 2
Favours MLND Favours MLNAS

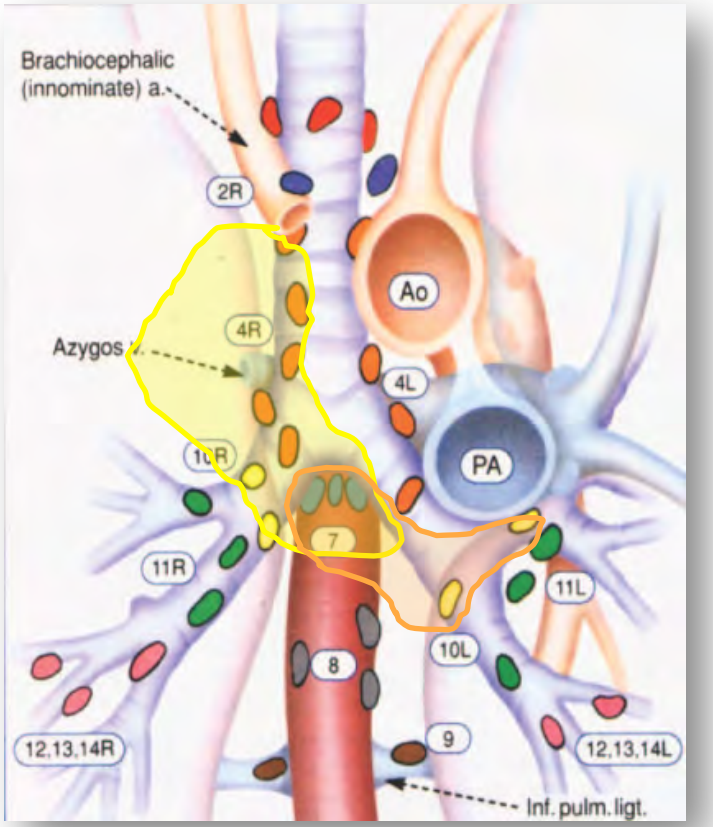
B

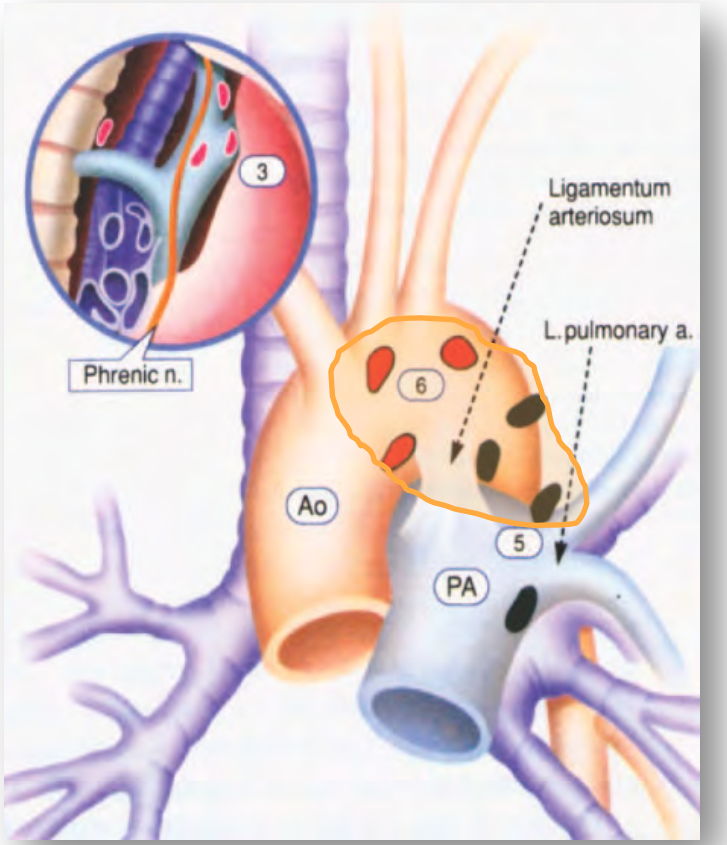
FIGURE 1. All cause mortality (*A*, risk ratio; *B*, hazard ratio) among patients with early-stage non-small cell lung cancer randomized to mediastinal lymph node dissection (*MLND*) versus sampling (*MLNS*) during pulmonary resection. *IV*, Inverse variance; *CI*, confidence interval; *ACOSOG*, American College of Surgery Oncology Group; *SE*, standard error.



Tagaki Het al. J Thorac Cardiovasc Surg 2011; 142:477-8

American College of Surgery Oncology Group Z0030 Trial





Darling G et al. J Thorac Cardiovasc Surg 2011;141:662-70

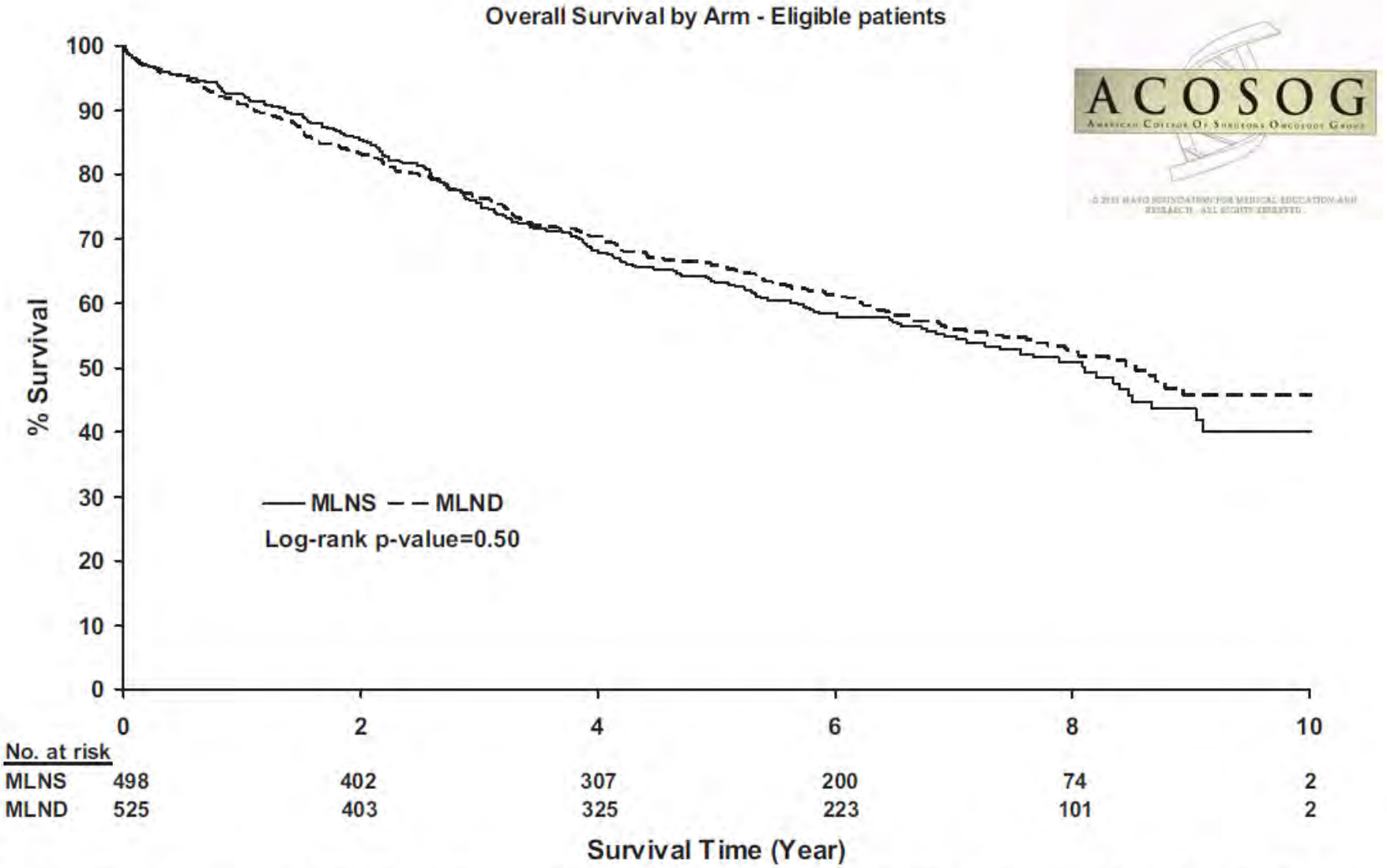
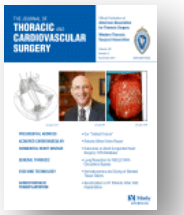


FIGURE 2. Overall survival. *MLNS*, Mediastinal lymph node sampling; *MLND*, mediastinal lymph node dissection.



Darling G et al. J Thorac Cardiovasc Surg 2011; 141(3):662-70

ACOSOG Z0030

Ce que montre cet essai

- Evaluation ganglionnaire minimale: 2&4D, 7, 10D // 5&6, 7 10G
- Le curage dans cette situation de cN0 trouve 13% de pN1 et 4% de pN2 (traitement adjuvant)
- Morbi-mortalité identique des 2 techniques

- Pour la pratique clinique: curage!

BMJ Open

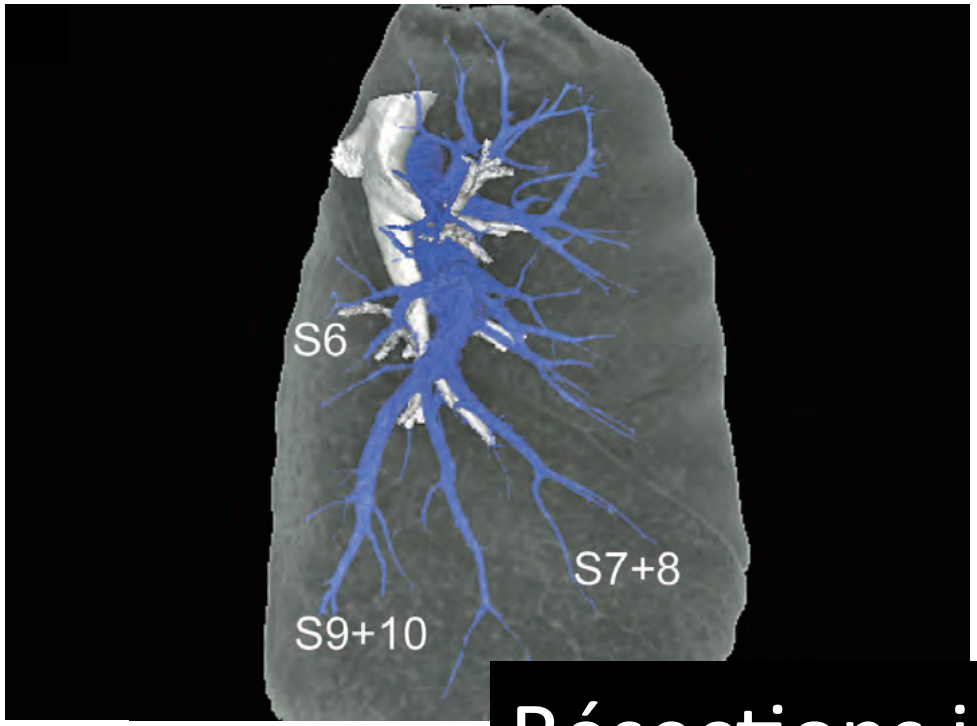
Medicoeconomic analysis of lobectomy using thoracoscopy versus thoracotomy for lung cancer: a study protocol for a multicentre randomised controlled trial (Lungsco01)

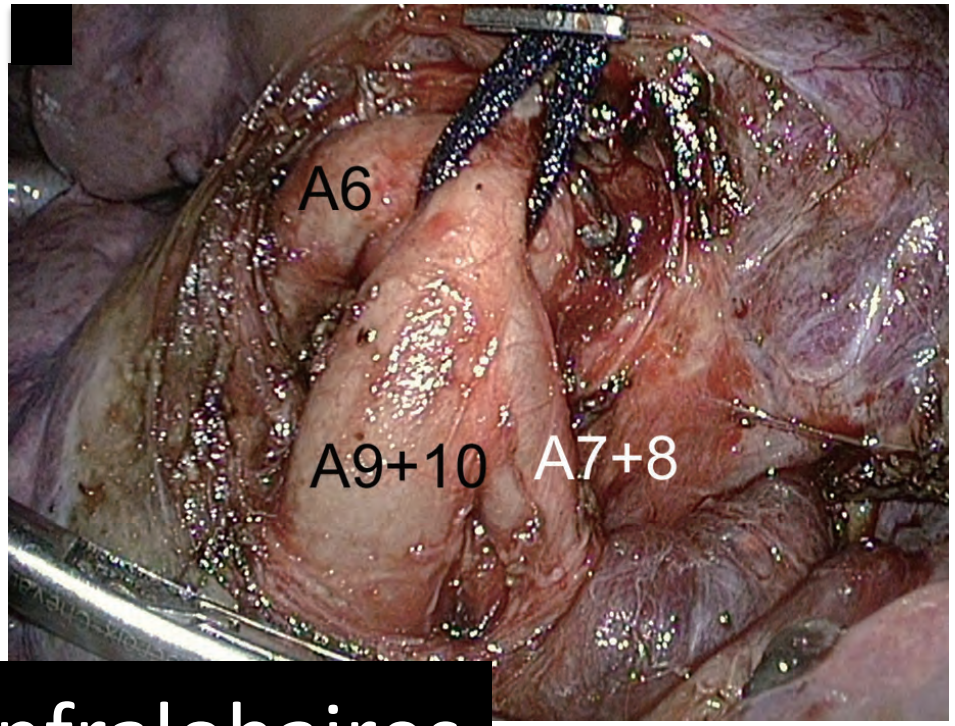
Pierre-Benoit Pagès,[1] Halim Abou Hanna,[1] Anne-Claire Bertaux,[2] Ludwig Serge Serge Aho,[3] Pierre Magdaleinat,[4] Jean-Marc Baste,[5] Marc Filaire,[6] Richard de Latour,[7] Jalal Assouad,[8] François Tronc,[9] Christophe Jayle,[10] Jérome Mouroux,[11] Pascal-Alexandre Thomas,[12] Pierre-Emmanuel Falcoz,[13] Charles-Henri Marty-Ané,[14] Alain Bernard[1]

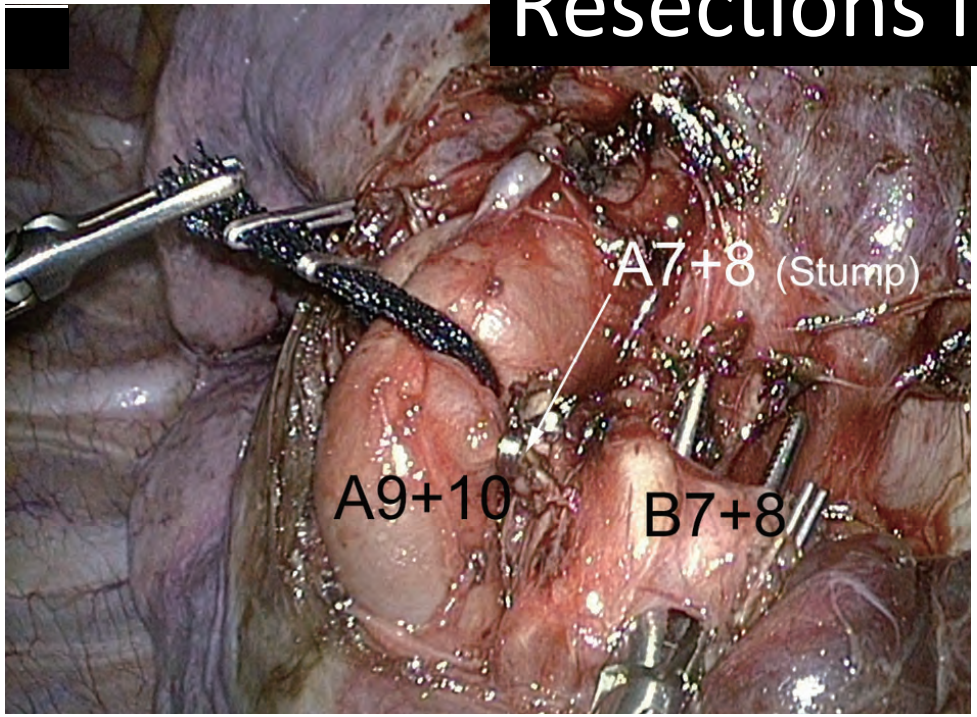
BMJ

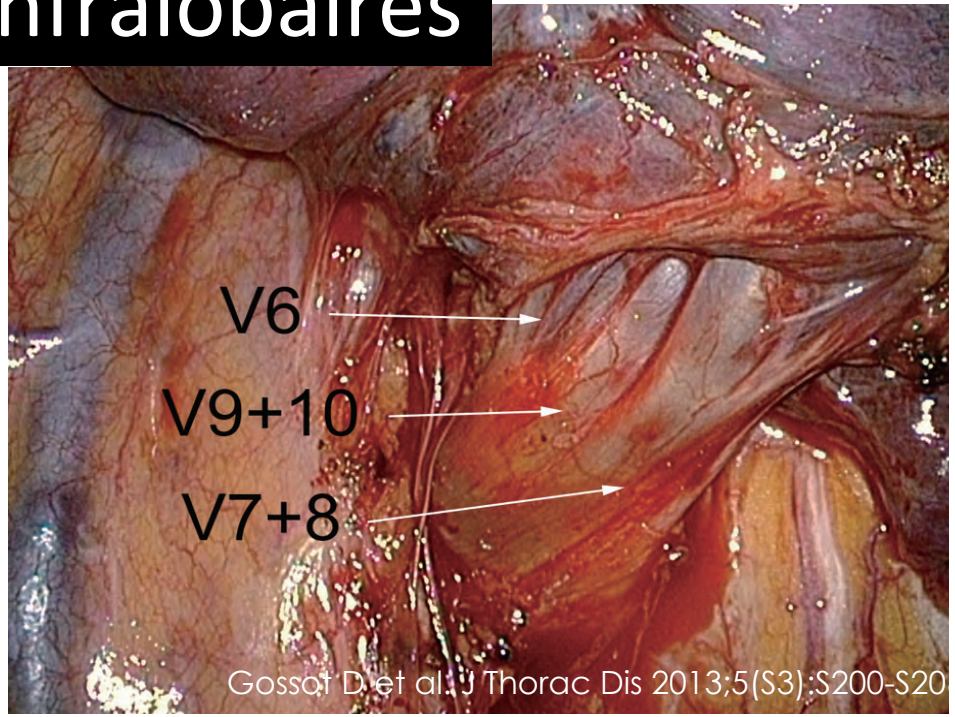
Pagès P-B, *et al. BMJ Open* 2017;**7**:e012963. doi:10.1136/bmjopen-2016-012963

Résections infralobaires









Gossot D et al. J Thorac Dis 2013;5(S3):S200-S20

Etendue de l'exérèse pulmonaire

- 1930 – Pneumonectomie
- 1960 – Lobectomie
- 1990 - Segmentectomie

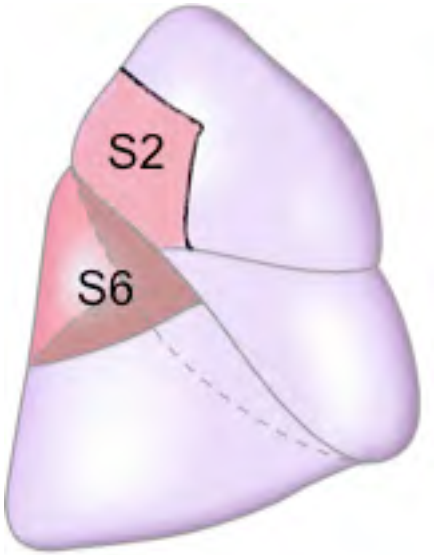
- ✓ *Churchill ED, et al. J Thorac Surg 1950; 20: 349–65.*
- ✓ *Cahan WG. J Thorac Surg 1960;39: 555–72.*
- ✓ *Kodama K, et al. Ann Thorac Surg 1992;54:1193-5*

Rationnel

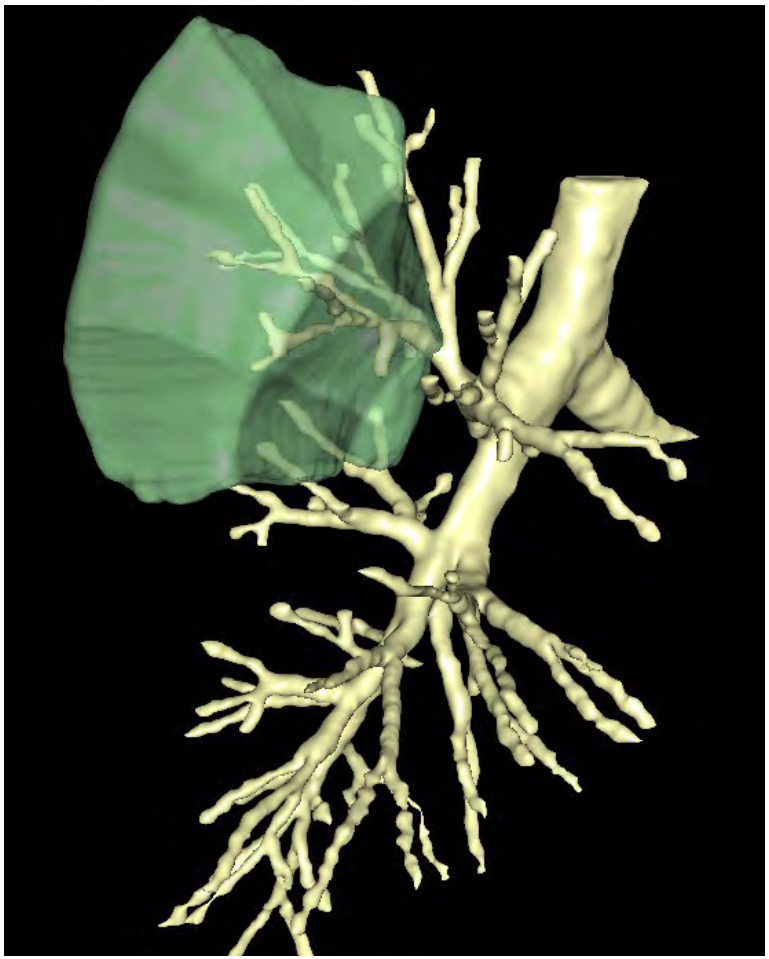
- ✓ Epargne parenchymateuse
  - Taille tumorale
  - Résections multiples & itératives
- ✓ Préservation fonctionnelle
  - Qualité de vie
  - Maîtrise du risque opératoire
- ✓ Risque opératoire (sujets à risque)
- ✓ Contexte contemporain
  - Épidémiologie
  - Alternatives thérapeutiques

- ✓ Pneumonectomie

- ✓ LSD + « wedge »
- ✓ LSD+ segmentectomie 6
- ✓ Bisegmentectomie 2&6

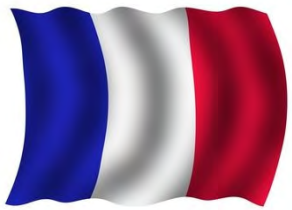


Définition



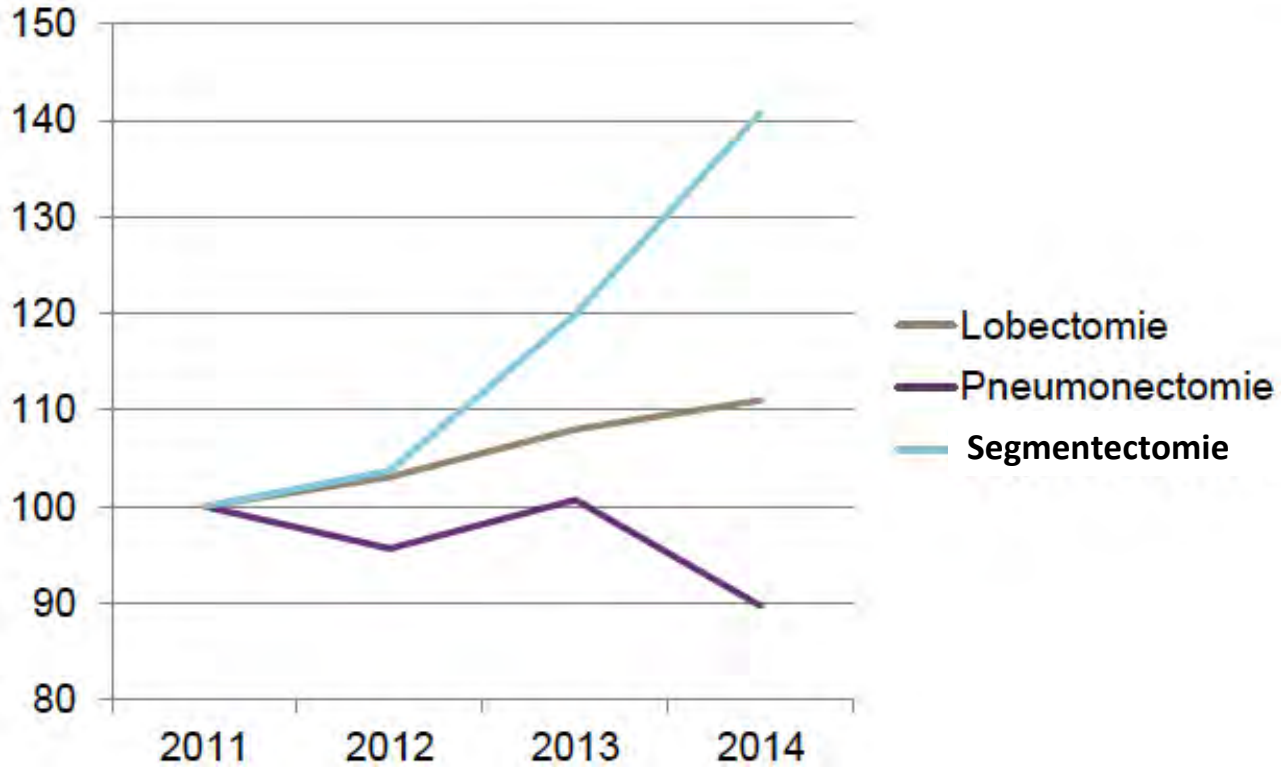
- Segmentectomie: Ablation d'un ou plusieurs segments anatomiques, associé à un curage ganglionnaire scissural, hilaire et médiastinal
- Cas particulier: Culmen et lingula peuvent être considérer comme des équivalents lobaires

- Résection atypique: Exérèse non anatomique d'une partie d'un lobe

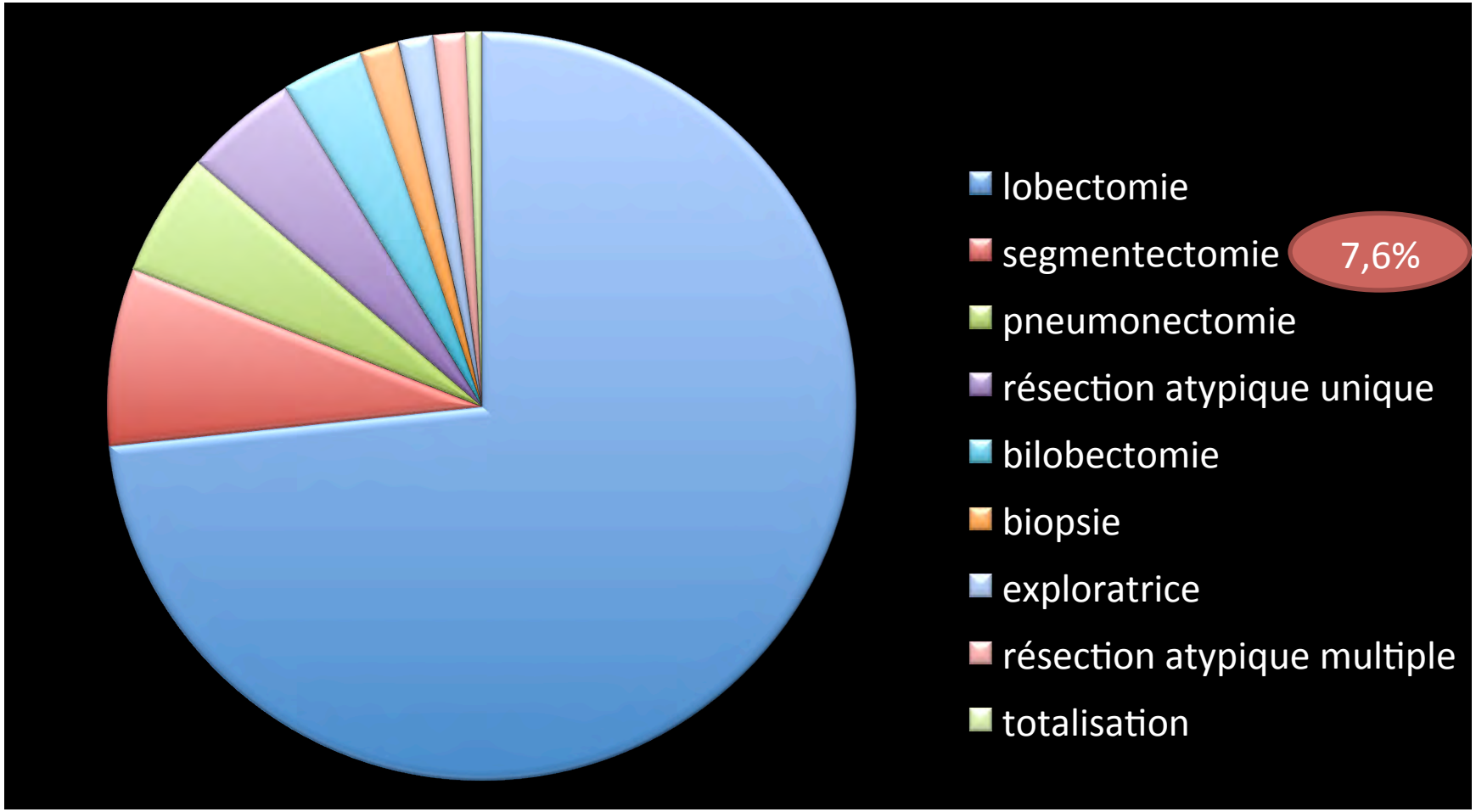


Les exérèses pulmonaires majeures – données PMSI

	2011	2012	2013	2014
Lobectomie	8 687	8 954	9 381	9 643
Pneumonectomie	1 126	1 077	1 134	1 010
Seg mentectomie	1 023	1 061	1 227	1 441



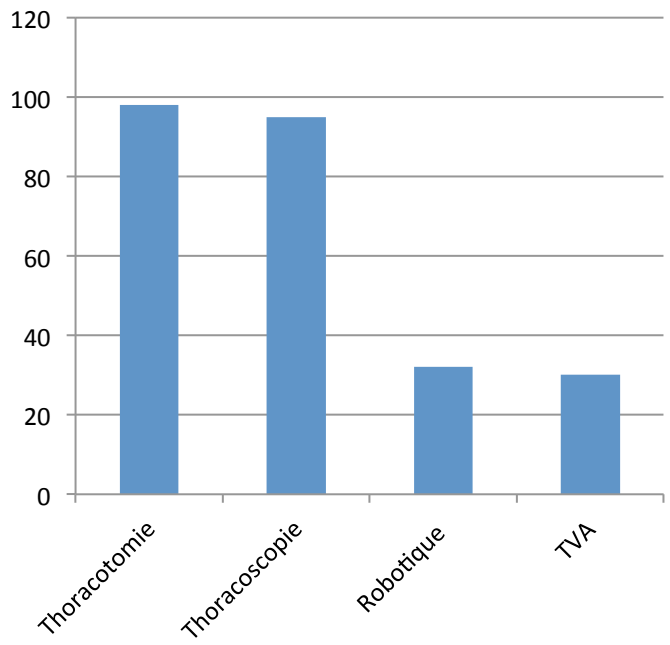
EPITHOR WEB 2016



Chirurgie programmée pour tumeur maligne primitive

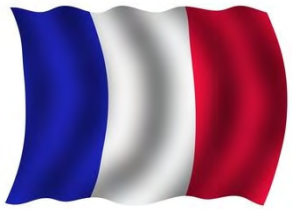
Segmentectomies 2016 EpiWeb

- Voie d'abord



- OMS 0-1: 90%
- VEMS préop: 84%
- Index comorbidité: 6,1
- T1-T2 N0 M0: 88%
- Moyenne: 2 segments
- Curage systématique: 71%
- DMS post-op: 8,1J

Chirurgie programmée pour tumeur maligne primitive



Risque contemporain des exérèses pulmonaires pour cancer 2013-2014

2% sur 8741 exérèses

	N	%	Mortalité J30
Pneumonectomie	726	8.7%	4.9%
Bilobectomie	343	4.1%	2.9%
Lobectomie	6046	72.7%	1.8%
Segmentectomie	***592***	***7.1%***	***0.5%***
Résection atypique	***604***	***7.2%***	***1.1%***

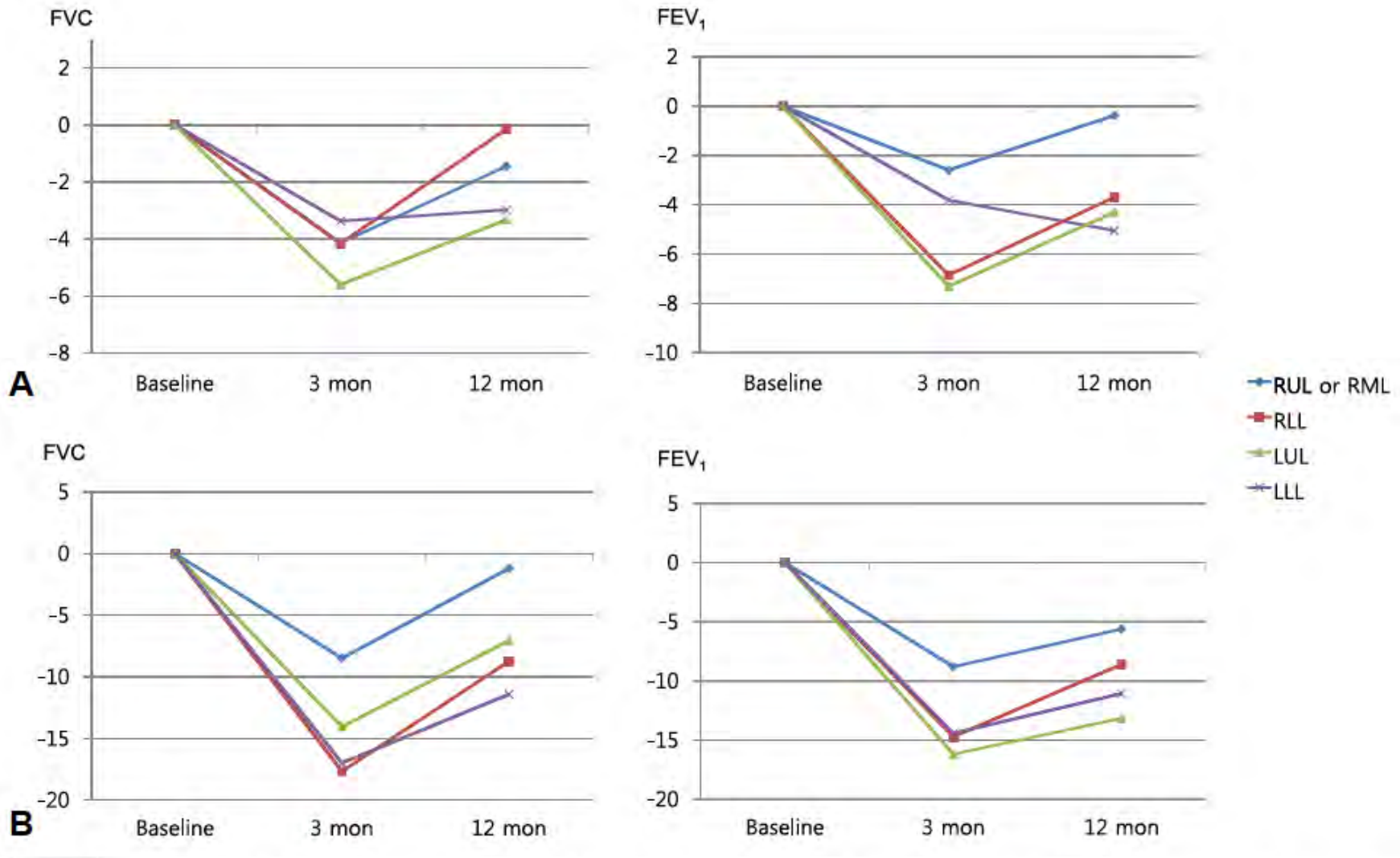
0.8%

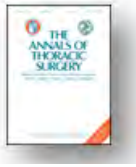
Données de la base EPITHOR de la SFCTCV

Epargne fonctionnelle

SLR

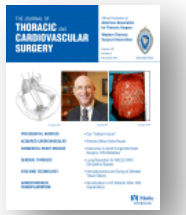
L



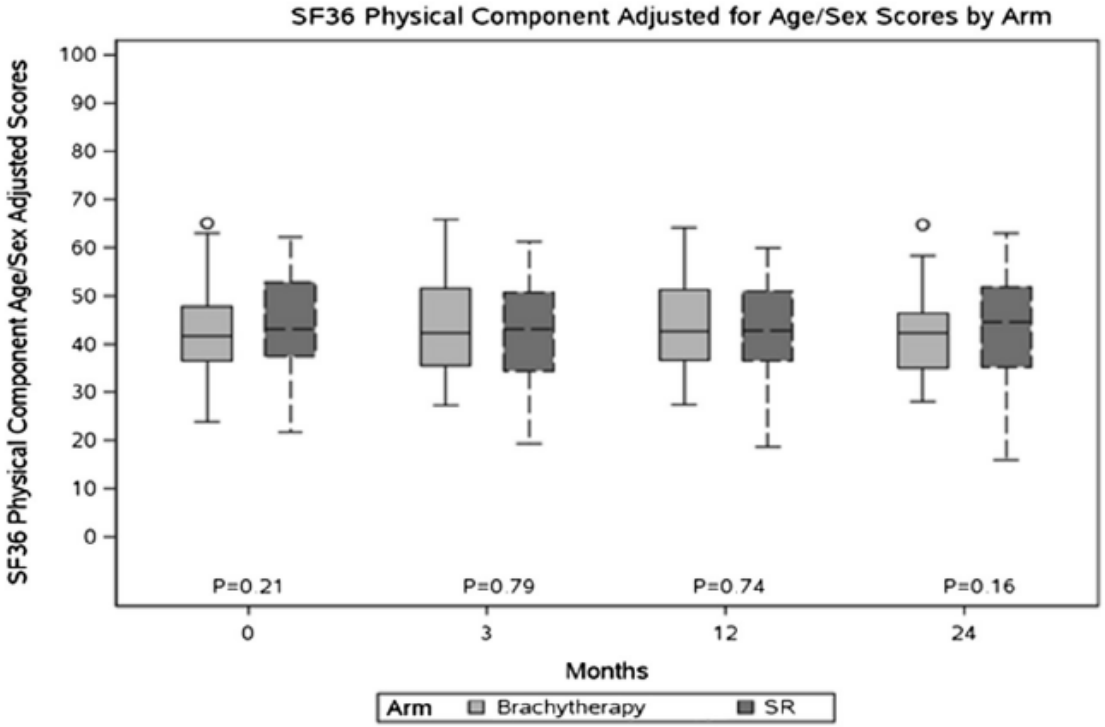


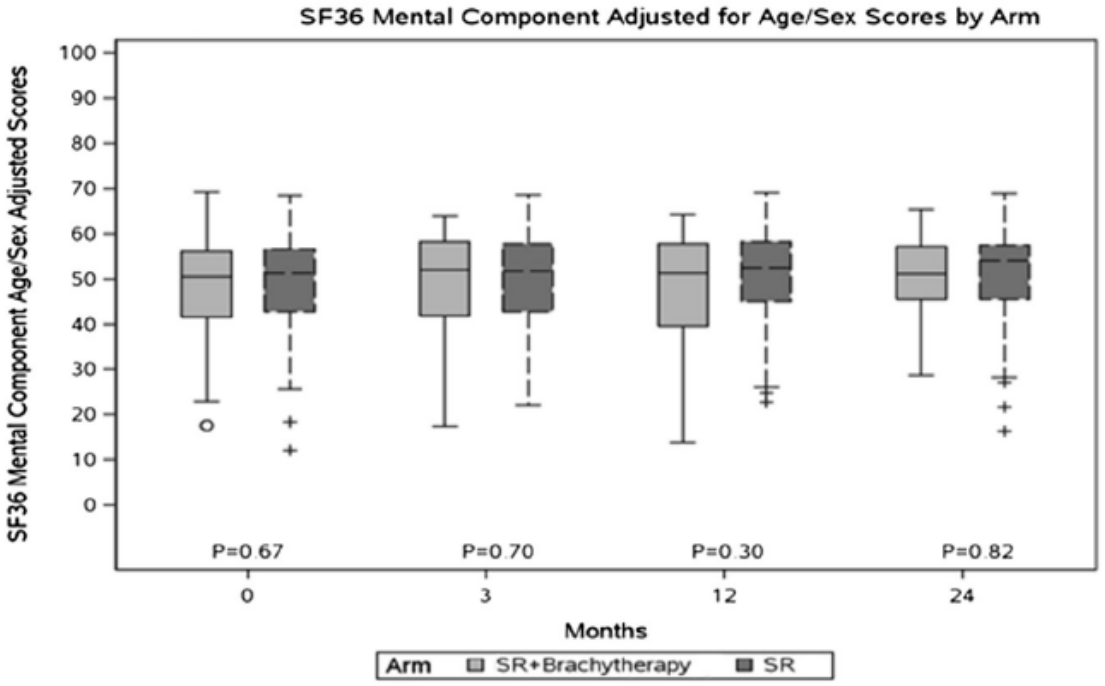
Kim SJ et al. Changes in Pulmonary Function in Lung Cancer Patients After Video-Assisted Thoracic Surgery Ann Thorac Surg 2015; 99:210–7

Qualité de vie



Fernando HC et al. Analysis of longitudinal quality-of-life data in high-risk operable patients with lung cancer: Results from the ACOSOG Z4032 (Alliance) multicenter randomized trial. J Thorac Cardiovasc Surg 2015; 149(3):718-25





Survie à long terme

Bao F, et al. Eur J Cardio-Thorac Surg 2014;46:1-7

Table 2: Summary of comparison results

Series	Survival	Comparison of survival			Egger's test	
		HR	95% CI	*P*-value	Bias	*P*-value
I	OS/CSS	1.20	1.04–1.38	0.011	0.12	0.770
IA	OS/CSS	1.24	1.08–1.42	0.002	−0.41	0.265
IA (2–3 cm)	OS/CSS	1.41	1.14–1.71	0.001	0.35	0.678
IA (≤2 cm)	OS/CSS	1.05	0.89–1.24	0.550	−0.15	0.802

La segmentectomie procure une survie inférieure à celle produite par la lobectomie chez les patients ayant un CPNPC de stade cI, de stade cI-A, et de stade cI-A avec une tumeur de plus de 2 cm.

Impact of Increasing Age on Cause-Specific Mortality and Morbidity in Patients With Stage I Non–Small-Cell Lung Cancer: A Competing Risks Analysis

Takashi Eguchi, Sarina Bains, Ming-Ching Lee, Kay See Tan, Boris Hristov, Daniel H. Buitrago, Manjit S. Bains, Robert J. Downey, James Huang, James M. Isbell, Bernard J. Park, Valerie W. Rusch, David R. Jones, and Prasad S. Adusumilli

Table 1. Patient Characteristics by Age Group and Surgical Procedure (continued)

	Age Group, No. (%)			
	< 65 Years (n = 654)	65-74 Years (n = 894)	≥ 75 Years (n = 638)	*P*
Outcome				
Severe morbidity (CTCAE grade ≥ 3)	50 (7.6)	71 (7.9)	46 (7.2)	.9
Mortality				
30 day	1 (0.2)	6 (0.7)	8 (1.3)	.05
90 day	4 (0.6)	9 (1.0)	14 (2.2)	**.034**
1 year	12 (1.8)	37 (4.1)	41 (6.4)	**< .001**
5-year lung cancer-specific CID, %†	7.5 (5.3 to 9.8)	10.7 (8.3 to 13.0)	13.2 (10.1 to 16.2)	.117
5-year noncancer-specific CID, %†	1.8 (0.7 to 2.8)	4.9 (3.4 to 6.4)	9.0 (6.6 to 11.5)	**< .001**
5-year OS, %†	85.0 (82.0 to 88.1)	75.8 (72.6 to 79.1)	63.6 (59.3 to 68.1)	**< .001**

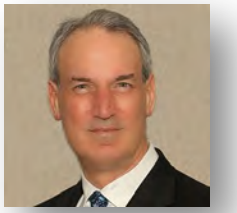
In press

Nakamura K, Saji H, Nakajima R, Okada M, Asamura H, Shibata T, et al. A phase III randomized trial of lobectomy versus limited resection for small-sized peripheral non-small cell lung cancer (JCOG0802/WJOG4607L) Jpn J Clin Oncol. 2010;40:271–4.

Altorki N, Keenan R, Bauer T, Scalzetti E, Demmy T, Kohman L, et al. CALGB 140503/Endorsed study: “A phase III randomized trial of lobectomy versus sublobar resection for small (<2 cm) peripheral non-small cell lung cancer”.

Parcours de soins « mini-invasifs »

European Journal of Cardio-Thoracic Surgery 43 (2013) 817–819
doi:10.1093/ejcts/ezs494 Advance Access publication 12 September 2012



EDITORIAL COMMENT

What is most important in improving outcomes after pulmonary lobectomy: the surgeon or the approach?

Douglas E. Wood*

Division of Cardiothoracic Surgery, Department of Surgery, University of Washington, Seattle, WA, USA

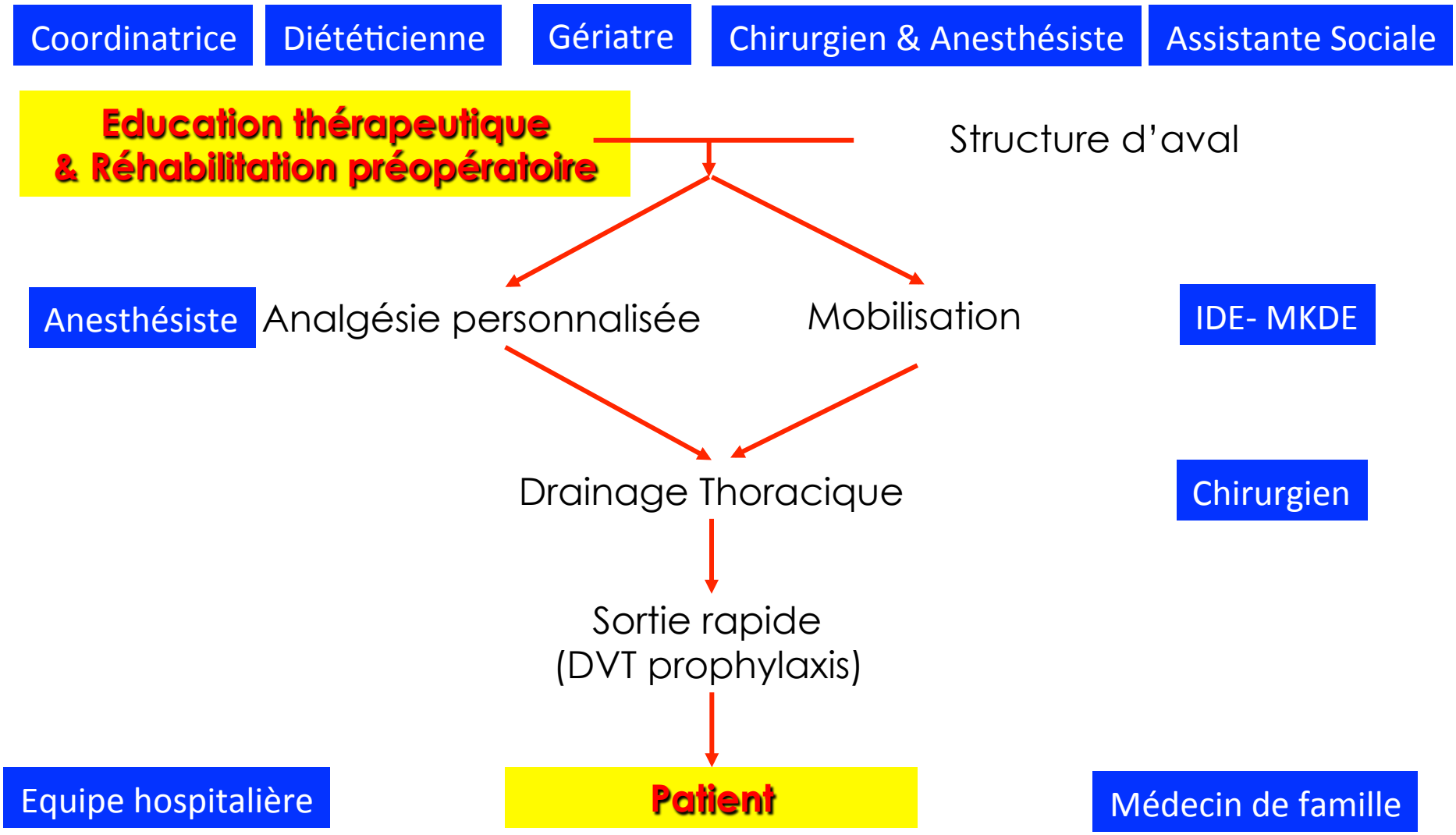
* Corresponding author. Division of Cardiothoracic Surgery, Department of Surgery, University of Washington, Box 356310, 1959 NE Pacific, AA-115, Seattle, WA 98195-6310, USA. Tel: +1-206-6853228; e-mail: dewood@u.washington.edu (D.E. Wood).

Keywords: Lobectomy • Thoracoscopy • Video-assisted thoracic surgery • Lung cancer • Nationwide inpatient sample • Comparative effectiveness

- Innovations technologiques (imagerie – informatique - matériel)
- Amélioration des techniques (« sans scissure »….)
- Changements épidémiologiques (dépistage)
- Evolution du cadre réglementaire (plan cancer/certification/ accréditation/registres…)
- Abolition des dogmes! (ex: drainage thoracique!)
- Changements de paradigmes (pas de prémédication – pas de jeûne prolongé – pas de sonde urinaire ou de SG - mobilisation précoce – analgésie loco régionale – hospitalisation courte)

Mobilisation précoce et drainage portatif

Parcours RAAC



An enhanced recovery pathway reduces duration of stay and complications after open pulmonary lobectomy

Amin Madani, MD,[a,b] Julio F. Fiore, Jr, PhD,[b] Yifan Wang, BSc,[b] Jimmy Bejjani, MD,[b] Lojan Sivakumaran, BSc,[b] Juan Mata, MD,[b] Debbie Watson, RN,[a] Franco Carli, MD, MPhil,[c] David S. Mulder, MD,[a] Christian Sirois, MD,[a] Lorenzo E. Ferri, MD,[a,b] *and* **Liane S. Feldman, MD,[a,b]**
Montreal, Quebec, Canada

Background. *Few studies have investigated the effectiveness of enhanced recovery pathways (ERP) for lung resection. This study estimates the impact of an ERP for lobectomy on duration of stay, complications, and readmissions.*
Methods. *Patients undergoing open lobectomy were identified from an OR database between 2011 and 2013. Beginning September 2012, all patients were managed according to a 4-day multidisciplinary ERP with written daily patient education treatment plans, multimodal analgesia, early diet, structured mobilization and standardized drain management. Pre-pathway (PRE) and post-pathway (POST) patients were compared in terms of duration of stay, complications, and readmissions.*
Results. *We identified 234 patients (PRE, 127; POST, 107). Groups were similar with respect to age, gender, American Society of Anesthesiologists score, and baseline pulmonary function. Compared with the PRE group, the POST group had decreased duration of stay (median, 6 [interquartile range (IQR), 5–7] vs 7 [6–10] days;* $P < .05$*), total complications (40 [37%] vs 64 [50%];* $P < .05$*), urinary tract infections (3 [3%] vs 15 [12%];* $P < .05$*), and chest tube duration (median, 4 [IQR, 3–6] vs 5 [4–7] days;* $P < .05$*), with no difference in readmissions (7 [7%] vs 6 [5%];* $P < .05$*) or chest tube reinsertion (4 [4%] vs 6 [5%];* $P < .05$*). Decreased duration of stay was driven by patients without complications (median, 5 [IQR, 4–6] vs 6 [5–7] days;* $P < .05$*).*
Conclusion. *Implementation of a multimodal ERP for lobectomy was associated with decreased duration of stay and complications with no difference in readmissions. (Surgery 2015;158:899-910.)*

Le concept de chirurgie thoracique mini-invasive

- Minimiser l'agression chirurgicale sans compromettre les résultats oncologiques
- Incorporer les évolutions technologiques
- Promouvoir les parcours de soins dédiés (RAAC)
- Mais une autre (r)évolution arrive….

Le patient connecté