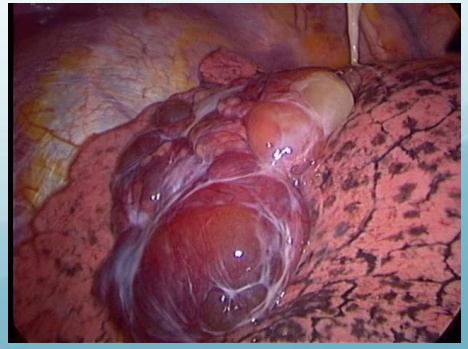
FOCUS EN IMAGE DE LA PRISE EN CHARGE MINI-INVASIVE

LA LOBECTOMIE VIDEO ASSISTEE VATS

David KACZMAREK



APL HPL
Association des Praticiens Libéraux de l'Hôpital Privé de la Loire

LA CHIRURGIE MINI-INVASIVE : VATS
UN NOUVEAU STANDARD EN ONCOLOGIE THORACIQUE !

- CARACTERISTIQUES DE LA VATS
  - Abord par trocarts et/ou incision « utilitaire » sans écartement costal
  - Vision indirecte par moniteurs
  - Instrumentation dédiée
  - Dissection et ligature élective des structures hilaires

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- INDICATIONS POTENTIELLES

  - Stade I Clinique
    - TDM et TEP
    - Médiastinoscopie ou Ponction transbronchique préopératoire
  - T < 5 cm
  - Périphérique
  - Malade à risque
  - Fonction pulmonaire altérée
    - VEMS et DLCO/VA < 60%

LA CHIRURGIE MINI-INVASIVE : VATS
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- LOBECTOMIE MINI – INVASIVE : LES FAITS
  - Est entrée dans les pratiques courantes
  - Morbidité post opératoires diminuée
  - Résultats oncologiques identiques

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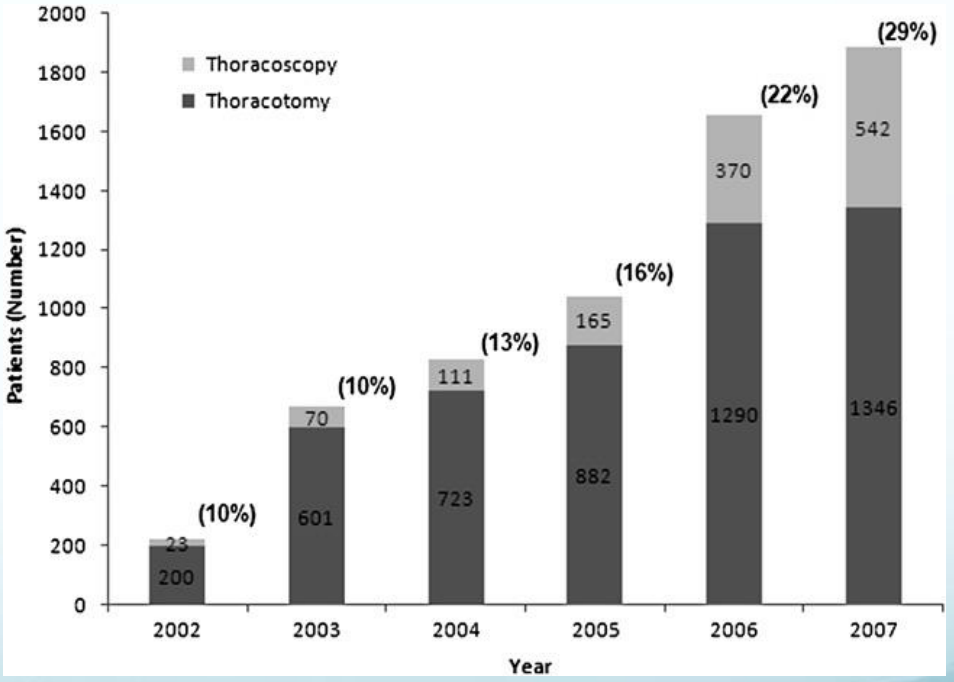
STS General Thoracic Database
40%



Lobectomy by thoracotomy or thoracoscopy by year in Society of Thoracic Surgeons (STS) general thoracic database.

Paul S et al. *J Thorac Cardiovasc Surg 2010;139:366-378*

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STS General Thoracic Database
40%

Danish Lung Cancer Registry
53%

United Kingdom
36%

EPITHOR – France
25%

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- LOBECTOMIE MINI – INVASIVE : LES FAITS
  - Morbidité post opératoires diminuée:
    - 3 larges études :
      - Whitson et al, *Ann Thorac Surg 2008;86:2008-18*
      - Paul et al, *J Thorac Cardiovasc Surg 2012;139:366-78*
      - Cao et al, *Interact Cardiovasc Thorac Surg 2012;10:1-6* **Méta analyse**
    - Mortalité identique à la chirurgie ouverte
    - Morbidité diminuée !

Morbidité %

	VATS	Thoracotomie	p
Whitson	16,4	31,2	0.018
Paul	26,2	34,7	<0.0001
Cao	20,2	24,9	<0.0001

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    - **Complications spécifiques**

	VATS	Thoracotomie	p
Respiratoires	7.5	12.2	0.001
Cardiovasc.	8.3	13.0	0.002
Réintubation	1.4	3.1	0.004
TACFA	7.2	11.5	0.0004
Transfusion	2.4	4.7	0.028

Paul et al, *J Thorac Cardiovasc Surg 2012;139:366-78*

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      - Cao et al, *Interact Cardiovasc Thorac Surg 2012;10:1-6* **Méta analyse**
    - **Durée d'hospitalisation**

Hospitalisation (jours)

	VATS	Thoracotomie	p
Whitson	8.3	13.3	0.016
Paul	4	6	<0.0001
Cao	6.3	8.8	<0.0001

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- LOBECTOMIE MINI – INVASIVE : LES FAITS
  - Résultats oncologiques identiques ?

- Chen FF et al. Video-assisted thoracoscopic surgery lobectomy versus open lobectomy in patients with clinical stage I non-small cell lung cancer: A meta-analysis.

  EJSO 2013;39:957-963

Results
20 studies with 3457 clinical stage Ⅰ NSCLC patients were included. There was no difference in operation time between the two groups (P = 0.14), but distinct advantages in terms of intra-operative blood loss, chest drainage time, hospital stay and complication incidence were found in the VATS group (P < 0.01). Moreover, the 5 year survival rate of VATS group was significantly higher than thoracotomy group (OR 1.82, 95% CI, 1.43–2.31, P < 0.01).
Conclusion
Compared with thoracotomy group, VATS achieved better surgical and oncological outcomes and was a more favorable treatment for stage Ⅰ NSCLC patients.

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REVIEW

Long-term survival in video-assisted thoracoscopic lobectomy vs open lobectomy in lung-cancer patients: a meta-analysis

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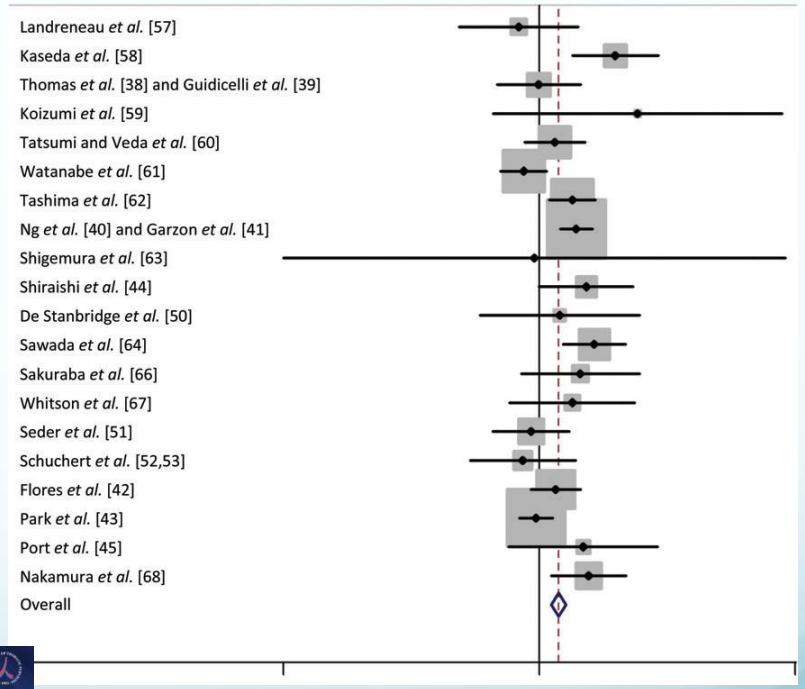
REVIEWS

Summary

Video-assistedthoracicsurgery (VATS) lobectomy is an appealing alternative to open lobectomy via thoracotomy for non-small-cell lung cancer. However, there is no clear consensus in regard to the superior approach for long-term outcomes. The data are limited to small series, which precludes further clarification. Meta-analysis of these studies was performed in order to obtain a more objective determination of the oncological feasibility of VATS lobectomy. A systematic review of the PubMed and Embase databases was performed. Twenty observational studies reporting long-term outcomes were included, involving 2106 VATS and 2661 thoracotomy patients. There was an advantage in long-term mortality for patients who underwent VATS vs patients who underwent thoracotomy (meta difference in survival: 5%; 95% CI: 3–6%) with large heterogeneity among studies ($Q = 42.6$; P-value: 0.001; $I^2 = 55.7\%$). There was no evidence of publication bias. Compared with open lobectomy, VATS lobectomy appears to have improved long-term outcomes.

Keywords: Lung cancer • VATS lobectomy • Open lobectomy • NSCLC • Thoracic surgery • Thoracotomy



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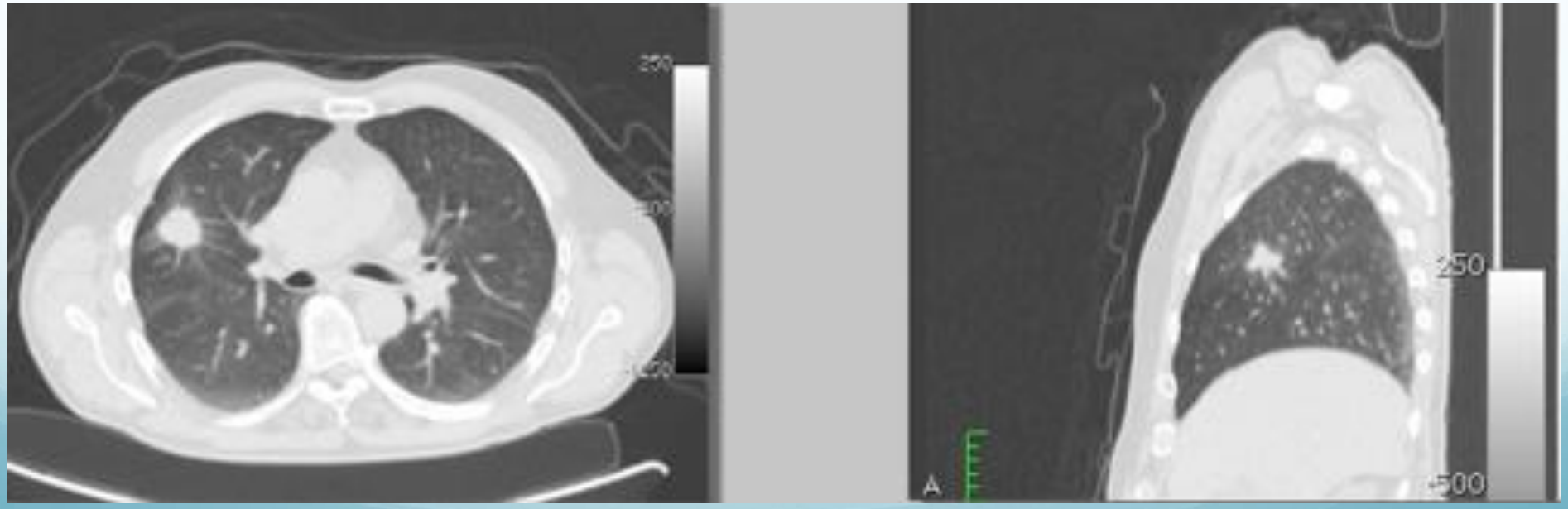
- Homme de 64 ans : découverte fortuite d'une image suspecte dans le lobe supérieur droit
- Scanner et Pet TDM: Lésion isolée hypermétabolique
- Cytologie positive
- cT1bN0M0 (Stade I A)



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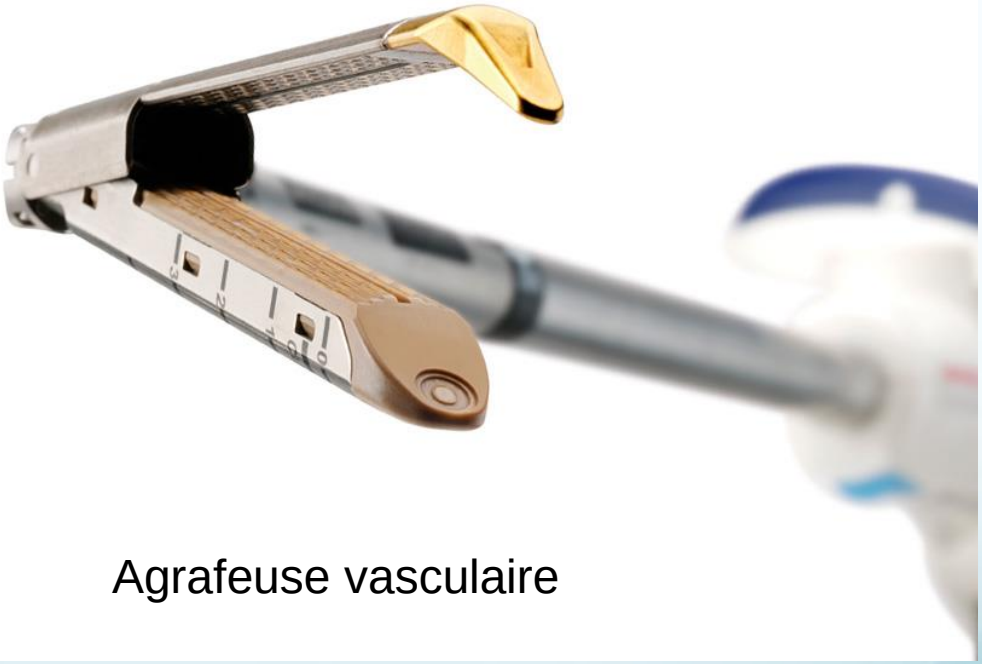
Pince Coagulante



Agrafeuse vasculaire

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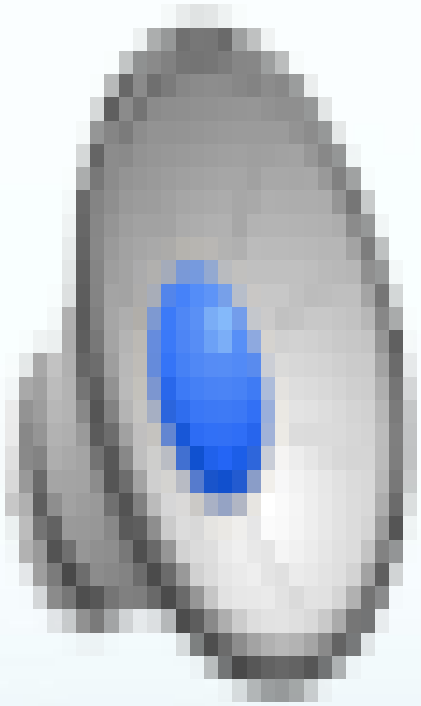

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- LOBECTOMIE MINI – INVASIVE : …Vers la RATS

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- LOBECTOMIE MINI – INVASIVE : …Vers la RATS
  - Limites de la Thoracoscopie :
    - Vision en deux dimensions
    - Caméra dépendant de l'assistant et de son expérience à manipuler le 30°
    - Nécessité d'apprentissage de la coordination main-œil
    - Utilisation instruments longs et rigides dans une cavité limitée
    - Effet bras de levier avec mouvements moins précis et en direction opposé
    - Traumatisme des nerfs intercostaux et douleurs postopératoires
  - Robot assisted thoracic surgery :
    - Vision en 3D
    - 7 degrés de liberté sur les instruments
    - Peu de mouvements de trocarts
    - Pas de tremblement donc mouvement fin et précis
    - Caméra fixe sous la commande de l'opérateur
    - Confort du chirurgien….assis !

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- LOBECTOMIE MINI – INVASIVE : …Vers la RATS

Comparing robot-assisted thoracic surgical lobectomy with conventional video-assisted thoracic surgical lobectomy and wedge resection: Results from a multihospital database (Premier)

Scott J. Swanson, MD,[a] Daniel L. Miller, MD,[b] Robert Joseph McKenna, Jr, MD,[c] John Howington, MD,[d] M. Blair Marshall, MD,[e] Andrew C. Yoo, MD,[f] Matthew Moore, MHA,[g] Candace L. Gunnarsson, EdD,[h] and Bryan F. Meyers, MD[i]

Conclusions: RATS lobectomy and wedge resection seem to have higher hospital costs and longer operating times, without any differences in adverse events. (J Thorac Cardiovasc Surg 2014;147:929-37)

lobectomy, segmental resection, or excision of a lesion or tissue from the lung between 2009 and 2011 were identified. Procedures using robotic technology were identified if 1 of 2 conditions were met: (1) a robotic *International Classification of Diseases, Ninth Revision* procedure code or (2) the text fields in the hospital record indicated that the robot was used. Using a propensity score and based on severity and comorbidities, certain demographics and hospital characteristics were matched. The association between VATS or RATS and adverse events, hospital costs, surgery time, and length of stay was examined.

Results: Of 15,502 patient records analyzed, 96% (n = 14,837) were performed without robotic assistance. Using robotic assistance was associated with higher average hospital costs per patient. The average cost of inpatient procedures with RATS was $25,040.70 versus $20,476.60 for VATS ($P$ = .0001) for lobectomies and $19,592.40 versus $16,600.10 ($P$ = .0001) for wedge resections, respectively. Inpatient operating times were longer for RATS lobectomy than VATS lobectomy (4.49 hours vs 4.23 hours; P = .0959) and wedge resection (3.26 vs 2.86 hours; P = .0003). Length of stay was similar with no differences in adverse events.

Conclusions: RATS lobectomy and wedge resection seem to have higher hospital costs and longer operating times, without any differences in adverse events. (J Thorac Cardiovasc Surg 2014;147:929-37)

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- LOBECTOMIE MINI – INVASIVE : …Vers la RATS
  - Intérêt pour le malade : Moins de douleurs
  - Intérêt pour le chirurgien :
    - Amplitude des mouvements
    - Gestes plus fins et précis
    - Améliore la dextérité?
    - Confort….

PREMIERE LOBECTOMIE RATS AU HPL
LE 13 NOVEMBRE 2017 !

MERCI DE VOTRE ATTENTION !!!