



Journées d'oncologie thoracique Alain Depierre

NANTES
7 & 8 NOVEMBRE 2019

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LES GRANDS PAPIERS PUBLIES :

CHIRURGIE

Dr Philippe LACOSTE
Chirurgie Thoracique et Cardiaque
CHU de Nantes

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CHIRURGIE ONCOLOGIQUE ET PAPIERS.....:

- VOIES D'ABORDS : Incisions et techniques des techniques respectant les principes oncologiques d'exérèses pulmonaires
- Efficacité et sécurité ?
- Analyse entre ces différentes techniques
- Nécessite historique... car essor récent de la chirurgie mini-invasive

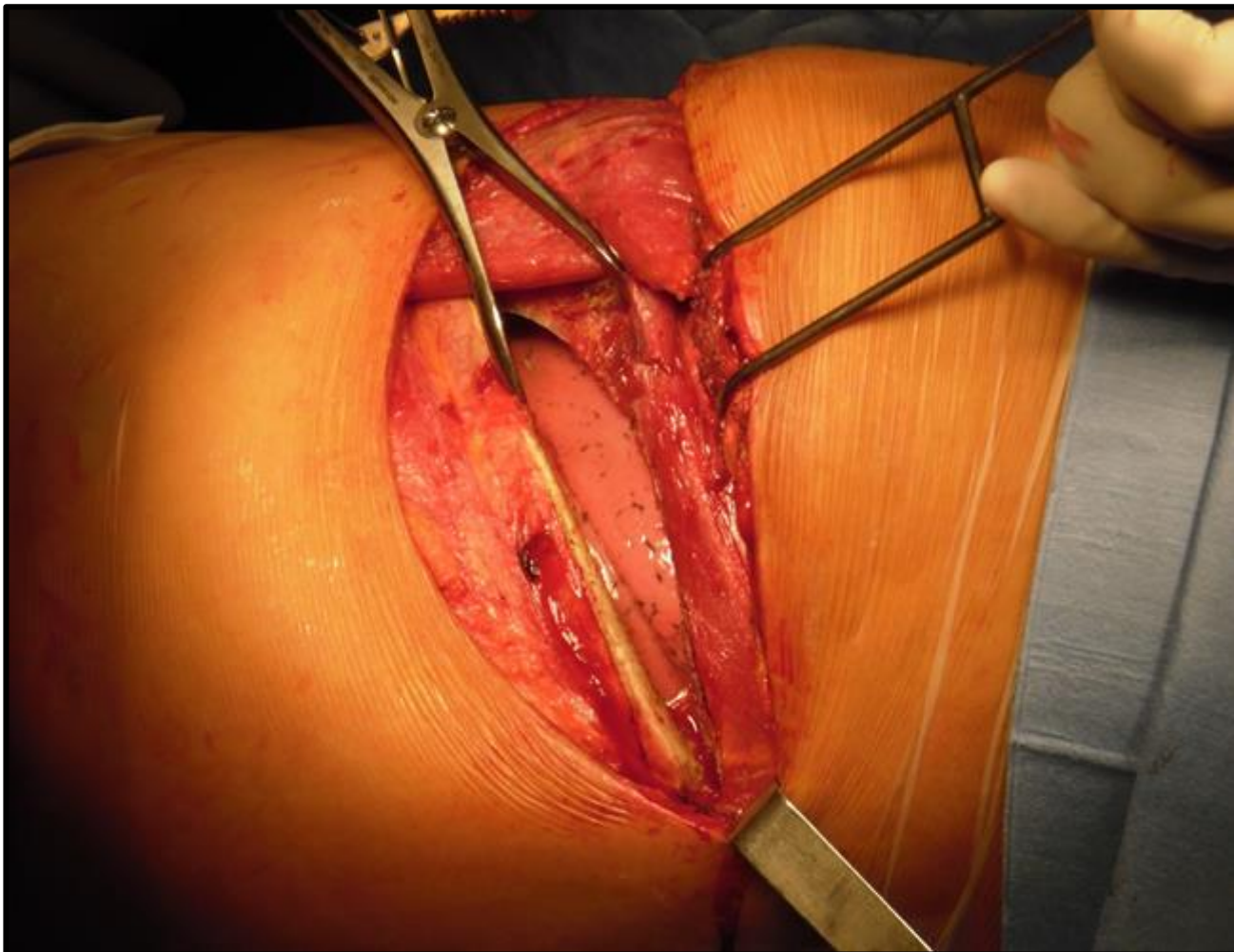
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Thoracotomie postéro latérale

- Voie d'abord de référence de la chirurgie pulmonaire
- 5ème espace intercostal
- Abord large
- Section du grand dorsal, désinsertion du grand dentelé, section des muscles intercostaux
- Ecartement des côtes



Thoracotomie postéro-latérale

- Délabrante
- Douloureuse
- Récupération longue
- Antalgique ++

Intérêt majeur du développement des techniques mini-invasives

Réhabilitation précoce / épargne musculaire
- antalgiques / meilleure ventilation post-op

Vidéo 2D

Vidéo 3D

Robotique

L'évolution de la chirurgie pulmonaire vidéo-assistée (CPVA)

1990

- Avènement de l'agrafage endoscopique chirurgical

2010

- Début de la CPVA en France

2013

- Première procédure de CPVA au CHU de Nantes

2018

- Arrivée de la 3D dans notre service

Surgical Management of Lung Cancer: History, Evolution, and Modern Advances

Authors

[Authors and affiliations](#)

Abbas E. Abbas 

Evolution :
VATS / RATS

Summary

Thoracic surgery for lung cancer has evolved to include advanced minimally invasive techniques including video-assisted and robotic-assisted thoracoscopy. RATS in particular may enable surgeons to perform more advanced procedures in a minimally invasive fashion. It is hoped that the higher costs of new surgical technology may be offset by the potential for improved patient outcomes and resultant socioeconomic benefits.

RATS

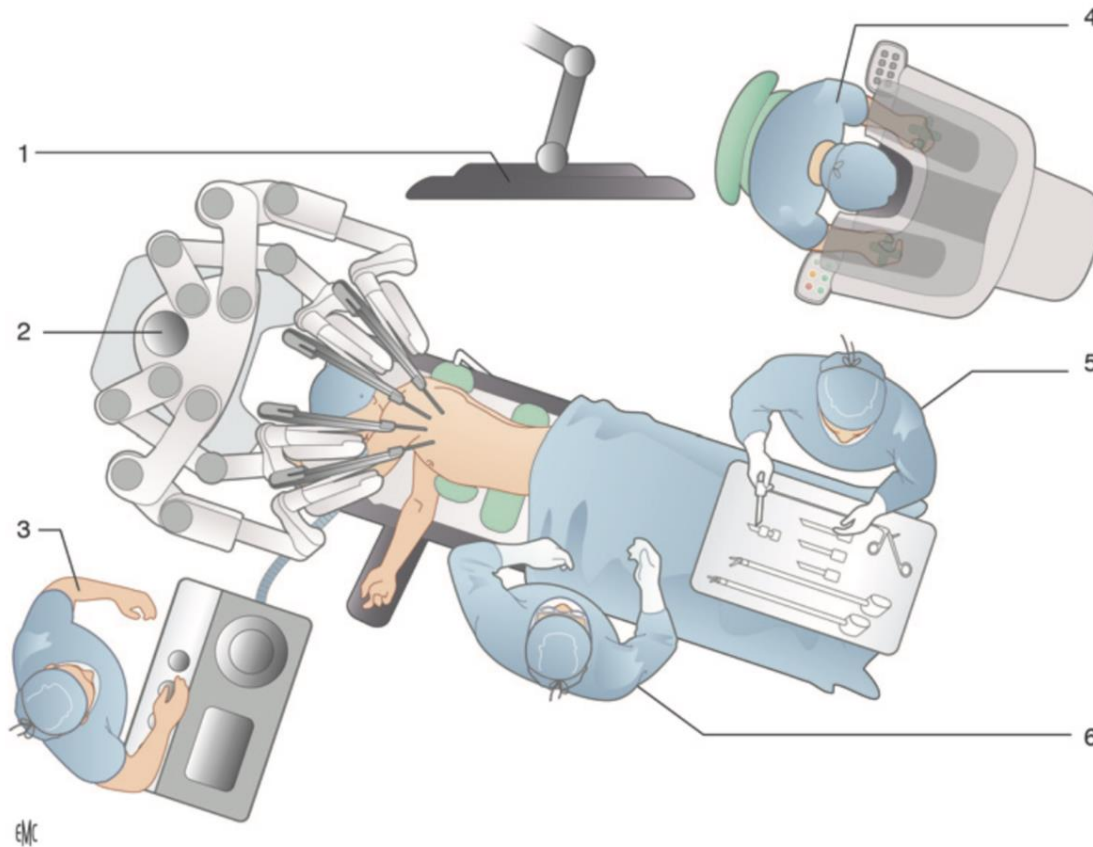


Figure 14. Organisation de la salle opératoire lors d'une exérèse anatomique à gauche par le robot Da Vinci (Intuitive Surgical, Inc, Mountain View, Californie). 1. Écran ; 2. bras robotisés avec instruments chirurgicaux et endoscope ; 3. anesthésiste ; 4. chirurgien à la console opératoire ; 5. instrumentiste ; 6. assistant.

Feasibility and safety of robot-assisted thoracic surgery for lung lobectomy in patients with non-small cell lung cancer: a systematic review and meta-analysis

Shiyu Wei^{1,3†}, Minghao Chen^{2†}, Nan Chen^{1,3} and Lunxu Liu^{1,3*}

Conclusions

In conclusion, the current systematic and meta-analysis demonstrates that RATS lobectomy is a feasible and safe technique for selected patients and can achieve an equivalent short-term surgical efficacy when compared with VATS procedure. However, longer operative time and cost effectiveness of RATS should be taken into consideration, and long-term oncological efficacy of the RATS approach remains to be seen.

RATS

Efficacy and Safety of Robot-assisted Thoracic Surgery (RATS) Compare with Video-assisted Thoracoscopic Surgery (VATS) for Lung Lobectomy in Patients with Non-small Cell Lung Cancer

Author(s): Xun Hu, Ming Wang*.

Journal Name: Combinatorial Chemistry & High Throughput Screening

Accelerated Technologies for Biotechnology, Bioassays, Medicinal Chemistry and Natural Products Research

Volume 22 , Issue 3 , 2019

20

Conclusions: RATS result in better mortality as compared with VATS. However, robotics seems to have longer operative time and higher hospital costs, without superior advantages in morbidity rates and oncologic efficiency. Since the advantages of RATS has been performed in some area, the continuation of a comparative investigation with VATS may be necessary. And some efforts need to be taken into consideration to reduce the operative time and cost.

RATS

Compare the prognosis of Da Vinci robot-assisted thoracic surgery (RATS) with video-assisted thoracic surgery (VATS) for non-small cell lung cancer

Medicine (Baltimore), 2019 vol. 98 (39) p. e17089

A Meta-analysis

Feng Guo, MD, Dongjie Ma, MD, Shanqing Li, MD*

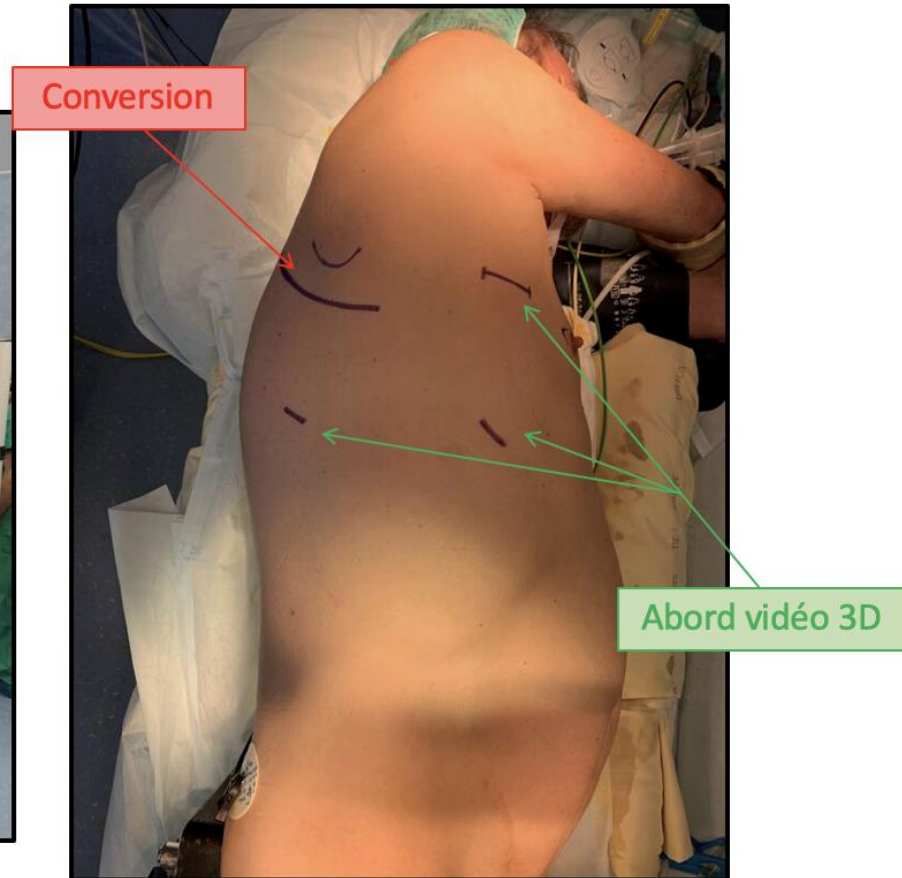
5. Conclusion

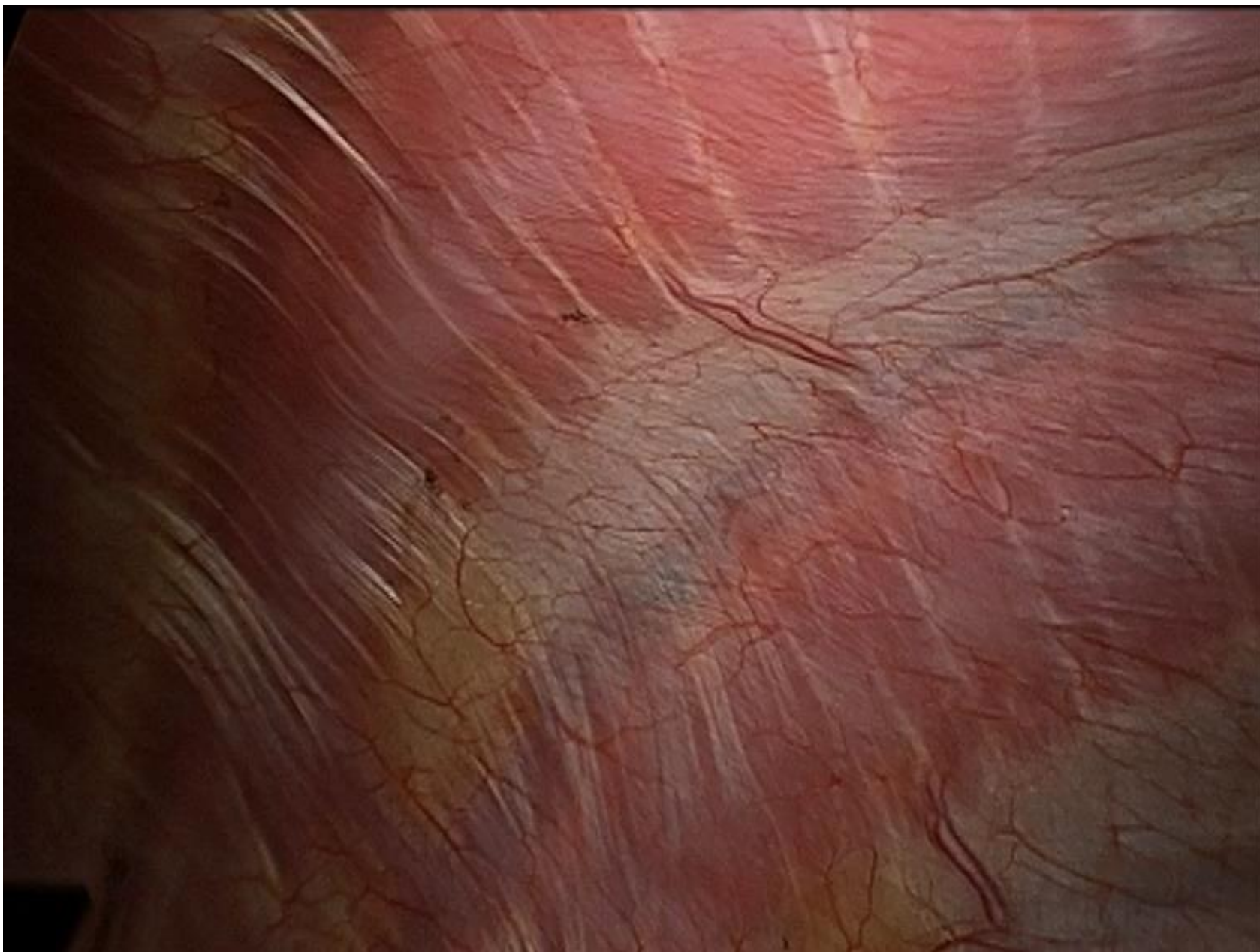
In conclusion, our data suggest that Da Vinci-RATS lobectomy is a feasible and safe technique and can achieve an equivalent surgical efficacy when compared with VATS. Every procedure in medicine has its own indications, and the role of robotic surgery remains unclear. Hence, future studies should emphasize the rigorous eligibility criteria, clear definition of outcomes. Needless to say, approaching segmentectomy with minimally invasive techniques adds a further layer of complexity. We strongly believe that the advantages in dexterity and depth of visualization delivered by the robot facilitate execution of more complex procedures, therefore allowing for anatomical resection in patients who benefit from lung preservation.

14

VATS

Installation





VATS 3D



VATS 3D

Three-dimensional video-assisted thoracic surgery for pulmonary resections: an update

Duilio Divisi, Mirko Barone, Roberto Crisci

Department of Thoracic Surgery, “G. Mazzini” Hospital, University of L’Aquila, Piazza Italia 1, Teramo, Italy

Contributions: (I) Conception and design: D Divisi; (II) Administrative support: D Divisi; (III) Provision of study materials or patients: D Divisi; (IV) Collection and assembly of data: M Barone; (V) Data analysis and interpretation: D Divisi; (VI) Manuscript writing: All authors; (VII) Final approval of manuscript: All authors.

Correspondence to: Duilio Divisi, MD, PhD. Department of Thoracic Surgery, “G. Mazzini” Hospital, University of L’Aquila, Piazza Italia 1, Teramo, Italy. Email: duilio.divisi@aslteramo.it.

J Vis Surg, 2017 vol. 3 (6) pp. 79-79

Conclusions

With advances in 3D technology, high-definition imaging systems now provide significantly improved picture quality and resolution, similar to the robotic one. Several studies have shown the advantages of 3D HD over conventional 2D HD in terms of improving surgeon performance in standardized basic skills tasks. The integration of 3D systems has improved minimally-invasive thoracic strategies and in the field of endoscopically assisted oncological surgery. An efficient 3D device increases surgical outcomes in a shorter time. Surely, another aspect to consider is the wide accessibility of the technology itself especially to developing countries. In an era of drastic cuts in health care costs, 3D is definitely more attractive than the much more expensive robotic technology. However, 3D results need to be confirmed and compared in a larger, prospective and multi-institutional databases.

AU TOTAL

Thoracotomie



Chirurgie mini-invasive :

- VATS / RATS
- 2D / 3D
- (3 trocards thoraciques en triangulation)



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l'institut du thorax

The techniques of uniportal video-assisted thoracoscopic surgery: lower lobectomies and lymphadenectomy

Carlos Galvez¹, Julio Sesma¹, Sergio Bolufer¹, Francisco Lirio², Jone del Campo¹, Sergio Maroto¹, Juan Manuel Corcoles³

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doi: 10.21037/jtd.2019.02.67

Abstract: Uniportal video-assisted thoracoscopic surgery (VATS) is probably the most successful single-incision approach worldwide, probably secondary to several specific circumstances: multiportal VATS was hardly getting his recognition in the thoracic surgeon's community; the extraordinary effort by his creators and believers for developing the technique and giving massive diffusion; the subjective feeling by surgeons who performed the approach about its benefits and advantages. Despite this, many efforts have focused on extending new indications and describing variations of the original intercostal uniportal VATS, but few quality papers have analyzed the real impact of the approach and its real advantages or disadvantages comparing to multiportal VATS. Thus, many surgeons still feel little confidence on the approach and reject his performance. With the aim of standardizing the approach and the technical aspects for non-experienced or beginners, the Uniportal VATS Interest Group (UVIG) of the European Society of Thoracic Surgery (ESTS) decided to set the basis for homogenization of the technique to cement the development of high-level evidence works that shed light on the real outcomes of uniportal compared to multiportal VATS. This article describes the main specific technical aspects while performing lower lobectomies and lymphadenectomy, which were described as the most suitable cases for initiating the learning curve.



Figure 1 Patient positioning during left-lower lobectomy, with an inflatable roller behind the contralateral side.



Figure 2 Instruments position: throughout most of the procedure, the camera stands in the upper part of the incision, and uniportal instruments and energy devices are placed in the lower part.

AU TOTAL

Thoracotomie

Chirurgie mini-invasive :

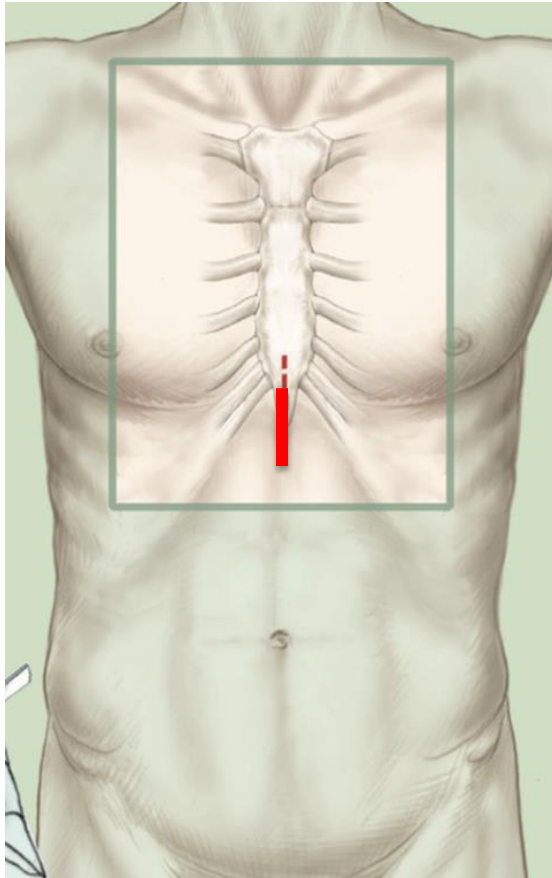
- VATS / RATS
- 2D / 3D
- (3 trocards thoraciques en triangulation)

Uniportal VATS

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VOIE Infra-Xiphoidienne !



- Pas de passage intercostal
- Pas de publication à ce jour
- Shangäi et Cambridge...
- À voir donc!

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